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Five-Year Review Report

Second Five-Year Review Report

For

New Lyme Landfill
Town of New Lyme
Ashtabula County, Ohio

March 2003

PREPARED BY:

Ohio Environmental Protection Agency
Northeast District Office
Twinsburg, Ohio 44087

Approved by: **Date:**

Wm. E Muno — 3/5/03

William E. Muno
Superfund Division Director
U.S. EPA, Region 5

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List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Regulations
DNAPL	Dense Non-Aqueous Phase Liquid
EPA	Environmental Protection Agency
ESD	Explanation of Significant Difference
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
PAH	Polyaromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SVOC	Semi-Volatile Organic Compound
SDWA	Safe Drinking Water Act
USACE	United States Army Corp of Engineers
VOC	Volatile Organic Compound

Executive Summary

The remedy for the New Lyme Landfill Site in New Lyme, Ashtabula County, Ohio, included the installation of a multi-layer protective cap, a ground water extraction system, a ground water treatment system, and ground water monitoring. After the issuance of an amended Record of Decision (ROD), the remedy for the Site included the discontinuance of the ground water extraction system and the treatment system, and long term ground water monitoring with a generic contingency plan. The trigger for this five-year review was the completion date of the first five-year review on February 24, 1998.

The assessment of this five-year review found that the remedy was constructed in accordance with the requirements of the ROD and the amended ROD. The remedy is functioning as designed. The immediate threats have been addressed and the remedy is expected to be protective when ground water cleanup goals are achieved.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name : New Lyme Landfill		
U.S. EPA ID : OHD980794614		
OHIO EPA ID: 204-0559		
Region: 5	**State:** Ohio	**City/County:** New Lyme/Ashtabula
SITE STATUS		
DNPL Status: _X_ Final ___ Deleted ___ Other (specify)		
Remediation Status: (choose all that apply): __ Under Construction _Operating _X_ Complete		
Multiple OUs?* ___Yes _X_ No		**Construction completion date:** 12/29/1992
Has site been put into reuse? ___Yes _X_ No		
REVIEW STATUS		
Lead agency: _X_ U.S. EPA ___ State ___ Tribe ___ Other Federal Agency		
Author name: Andrew C. Kocher		
Author Title: Site Coordinator	**Author affiliation:** Ohio EPA / Northeast District Office	
Review period:** 6/5/2002 to 2/24/03		
Date(s) of site inspection: 10/24/02 & 11/14/02		
Type of review: ___Post–SARA _X_ Pre-SARA ___ NPL-Removal only ___ Non-NPL Remedial Action Site ___ NPL State/Tribe-lead ___ Regional Discretion		
Review number: ___ 1 (first) _X_ 2 (second) ___ 3 (third) ___ Other (specify)		
Triggering action: ___ Actual RA Onsite Construction at OU # ___ ___ Actual RA Start at OU# ___ ___ Construction Completion _X_Previous Five-Year Review Report ___ Other		
Triggering action date: 2/24/1998		
Due date (five years after triggering action date): 2/24/2003		

***** ["OU" refers to operable unit.]

****** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form - cont.

Issues:

Numerous areas where subsidence has occurred (low spots), located on the eastern portion of the landfill.

Inadequate monitoring data to verify that the plume is not migrating within the deep aquifer (lower zone of the bedrock aquifer).

Lack of analytical projections to predict length of time until ground water cleanup goals will be achieved.

High arsenic levels at the Site.

Recommendations and Follow-up Actions:

Develop plan to repair "low spots," submit plan to U.S. EPA for approval, conduct repair activities.

Conduct periodic sampling of the following wells: MW-6C, MW-9C, MW-15C, MW-17C, MW-18C. The sampling frequency and analyses may be modified as appropriate in 2003.

Conduct analytical projections to determine length of time until ground water cleanup goals will be achieved.

Further investigate high arsenic levels, including potential from natural occurrences.

Protectiveness Statement:

All immediate threats at the site have been addressed, and the remedy is expected to be protective of human health and the environment.

Long-term Protectiveness:

Current monitoring data indicate that the plume remains onsite and that the remedy is functioning as required to achieve ground water cleanup goals. Continuing ground water sampling will insure that contaminants will remain on the site.

Other Comments:

All current monitoring data indicate that the plume remains onsite. Therefore, monitoring frequency shall be reevaluated following the final report summarizing all eight quarters of sampling data.

New Lyme Landfill Site
New Lyme, Ashtabula County, Ohio
Second Five-Year Review Report

I. Introduction

The Ohio Environmental Protection Agency (Ohio EPA) has conducted a Five-Year Review for the United States Environmental Protection Agency (U.S. EPA) at the New Lyme Landfill site (the Site), Ashtabula, Ohio. The purpose of the Five-Year Review is to ensure that the remedial action implemented at the New Lyme Landfill site remains protective of public health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

Ohio EPA is preparing this Five-Year Review report pursuant to CERCLA § 121 and the National Contingency Plan (NCP). CERCLA § 121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgement of the President that action is appropriate at such site in accordance with Section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The U.S. EPA interpreted this requirement further in the NCP; 40 C.F.R. § 300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

Ohio EPA conducted the Five-Year Review of the remedy implemented at the New Lyme Site (Site) in New Lyme, Ashtabula County, Ohio. This review was conducted by Ohio EPA's Site Coordinator and reviewed by the U.S. EPA Remedial Project Manager (RPM) for the entire Site from June 2002 through February 2003. This report documents the results of the review.

This is the second five-year review for the New Lyme Site. The triggering action for this policy review is the signature date of the first Five-Year Review on February 24, 1998. The Site is pre-SARA and the first Five-Year Review was conducted as a matter of policy. Due to the fact that a ROD Amendment was issue in 1999 for the Site, the five-year review is now required by the Statue since hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

Table 1 - Chronology of Site Events

Event	Date
Landfill received household, industrial, commercial, and institutional wastes, as well as construction and demolition debris.	1969 - 1978
Facility obtained license to operate.	1971
Numerous violations occurred.	1971 - 1978
Landfill closed by Ashtabula County Health Department.	8/1978
Site discovery.	5/1/1982
Site inspection.	7/1/1982
Proposal to NPL.	12/30/1982
Preliminary assessment completed.	1/1/1983
Remedial Investigation (RI) was conducted.	8/1983 – 8/1984
Final listing on NPL.	9/8/1983
Remedial Investigation Report completed.	2/1985
Feasibility Study Report completed.	9/1985
ROD/Remedial Alternative Selection signed.	9/1985
Extraction wells were installed.	1989
Pumping and water treatment begins.	10/3/1990
Construction completion.	12/29/1992
Removal activities conducted at the Site.	1/13/1994 - 1/18/1994
State of Ohio assumes the O&M responsibilities at the Site.	7/24/1994
Potentially Responsible Parties (PRP) assumes the O&M responsibilities a the Site.	1997
First Five-Year Review signed.	2/24/1998
Focused Feasibility Study completed.	1998
ROD Amendment signed.	11/16/1999
Deactivation of the ground water extraction/treatment system.	7/27/2001
Long-term groundwater monitoring begins.	8/2001
5th Quarter Sampling Event	9/2002 – 10/2002

III. Background

Physical Characteristics

The New Lyme Landfill Site property is about one mile west of State Route 11 on Dodgeville Road in Ashtabula County, approximately midway between the cities of Warren and Ashtabula. The Site is about three miles east of Dodgeville and about one mile west of the intersection of Dodgeville and Hunter Roads (Figure 1). The landfill is irregular in shape and occupies about 40 acres of the approximately 100-acre tract. On the north, it is bounded by Dodgeville Road and a wooded wetland area associated with Lebanon Creek. Wooded wetland areas also form the west and south boundaries; directly west of the Site is a lake. The land to the west is a wildlife area used for public hunting and fishing. East of the Site, land has been cleared for agricultural use.

A regional water shed divide between the Lebanon Creek and Mosquito watersheds lies approximately one-quarter mile south of the Site. Surface water drainage from the landfill and the immediately surrounding area discharges to Lebanon Creek. During the RI phase there did not appear to be any discharges from the Site to the Mosquito Creek watershed. Discharges from the Site are carried by Lebanon Creek to Rock Creek, and by Rock Creek to the Lake Roaming Rock Reservoir. The reservoir is approximately five miles downstream of the Site. Several marshy areas surround the landfill on the north, west and south sides. The ground surface of the landfill is nearly level and is approximately five to six feet above the surrounding grade. The Site is in a wooded, marshy area, which straddles the divide between the Great Lakes and Mississippi River drainage basins.

Land and Resource Use

The New Lyme Landfill began operations in 1969. The landfill received household, industrial, commercial and institutional wastes, as well as construction and demolition debris between 1969 and 1978. Initially managed by two area farmers, the landfill was licensed by the State of Ohio in 1971 and operations were taken over by a licensed landfill operator. There were numerous violations of the license, the Ohio Revised Code, and the Ohio Administrative Code. In early August 1978, the landfill was closed by the Ashtabula County Health Department, because of numerous violations, including open dumping, improper spreading and compacting of waste; no state approval for disposal of certain industrial wastes; and reported excavation of trenches into the shale bedrock.

The area west of the landfill is operated by the Ohio Department of Natural Resources, Division of Wildlife, as a public hunting and fishing area. Within the

wildlife area, an approximately 54-acre lake was installed and the clay excavated was used as a cap for the landfill in 1990.

History of Contamination

According to Ohio EPA documentation, an average 5,500 cubic yards of domestic wastes, 8,000 cubic yards of commercial wastes, and 14,000 cubic yards of industrial wastes per month were disposed of at the landfill. Documents indicated that wastes at the New Lyme Site included: coal tar and coal tar distillates; asbestos; resins and resin tar; paint and paint sludge; miscellaneous oils; lacquer thinner; peroxide; various corrosive liquids; acetone; xylene; toluene; kerosene; naphtha; benzene; trichloroethene (TCE); linseed oil; mineral oil; fuel oil; miscellaneous chlorinated solvents; 2,4-D; laboratory chemicals; and waste waters.

Initial Response

After receiving numerous violations, the U.S. EPA conducted a Site inspection to determine eligibility for the National Priorities List (NPL). The Site was proposed for the NPL on December 31, 1982. Subsequent remedial investigations and activities were funded by the U.S. EPA until 1997 when the PRPs began to manage the Site. A remedial investigation (RI) was conducted on behalf of U.S. EPA by CH2M Hill from August 1983 to August 1984. Remedial investigation activities included magnetometer surveys and collection of on-Site samples for chemical analysis of surface and subsurface soil, Lebanon Creek, sediment and water, ground water, and leachate seeps.

Basis for Taking Action

Contaminants:

Hazardous substances that have been released at the Site in each media include:

Soil	**Leachate**
PCB's	PAHs
Mercury	Phthalates
PAHs	P-Chloro-M-Cresol
Phthalates	Pentachlorophenol
Dibenzofuran	Phenol
Ethylbenzene	Benzoic Acid
Toluene	2-Methylphenol
2-Butanone (MEK)	1,4-Dichlorobenzene
2-Hexanone	N-Nitrosodiphenylamine
4-Methyl-2-Pentanone	Benzyl Alcohol

Soil	**Leachate**
Xylene	Acrolein
Fluorotrichloromethane	1,2-Dichloroethane
Tetrachloroethene	1,1-Dichloroethane
Styrene	Trans-1,3-Dichloropropene
1,1,1-Trichloroethene	Ethylbenzene
Carbon Disulfide	Chloromethane
	Methylene Chloride
Ground Water	Toluene
	Trichloroethene
1,2-Dichloroethane	Vinyl Chloride
Methylene Chloride	2-Butanone (MEK)
2-Butanone (MEK)	2-Hexanone
2-Hexanone	4-Methyl-2-Pentanone
4-Methyl-2-Pentanone	Xylene
Ethylbenzene	Acetone

Surface Water	**Sediment (at Leachate Sites)**
Trichloroethene	Ethylbenzene
Tetrachloroethene	Methylene Chloride
Acetone	Toluene
	2-Butanone (MEK)
	4-Methyl-2-Pentanone
	Xylene
	Acetone
	Trans-1,2-Dichloroethene

IV Remedial Actions

Remedy Selection

On September 27, 1985, U.S. EPA signed a ROD for the New Lyme Landfill Site. Consistent with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), and the National Contingency Plan (40 CFR Part 300), U.S. EPA determined that taking source control action by capping the landfill and consolidating contaminated sediment under the cap, and taking management of migration action by extraction and onSite treatment of contaminated leachate and ground water at the New Lyme Site was a cost-effective remedy that provides adequate protection of public health, welfare and the environment. The State of Ohio was consulted and agreed with the approved remedy. In addition, the action did require further operation and maintenance activities, to ensure the continued effectiveness of the remedy. It was also determined that the action taken was

appropriate when balanced against the availability of Trust Fund monies for use at other Sites. Through a consent decree, the PRPs assumed O&M responsibilities for the Site. The consent decree was lodged on August 16, 2000 and entered on November 9, 2000.

Specifically, the components of the selected remedy included:

- Installation of RCRA cap over the landfill with gas vents.
- Installation of extraction/containment wells around the Site perimeter to dewater landfill and eliminate leachate production.
- OnSite consolidation of contaminated sediment under the cap.
- Treatment of extracted ground water using pH adjustment, biodisc, metals removal by NaOH precipitation, and granular activated carbon finishing until the treatment system becomes unnecessary (after about 15 years).
- Installation of a ground water monitoring system around the Site perimeter.
- Erection of a perimeter fence around the Site.

Remedy Implementation

A Remedial Investigation (RI) was conducted from August 1983 to August 1984 by CH2M Hill for U.S. EPA's Remedial Planning/Field Investigation Team. Based primarily on information obtained during this investigation, Donahue & Associates, Inc. (Donahue) modeled the ground water flow at the Site using a two-dimensional, nonsteady-state ground water flow model called PLASMER 4, which is a modified version of the Prickett-Lonnquist Aquifer Simulation Model known as PLASM (Prickett 1971). As described on GW-11 of the 1987 Design Analysis, this model can simulate flow in a confined/unconfined, homogenous/heterogeneous, isotropic/anisotropic aquifer system.

Based on the modeling results, Donahue designed a dewatering and treatment system that included 13 extraction wells and 18 clusters of monitoring wells (Figure 2). The extraction well network was designed to lower the water table to a depth of at least 20 feet throughout the Site within six years of initiation of pumping. Installation of the wells was completed in mid-1989, and pumping and water treatment began in late 1990.

As stated in the 1986 Predesign Report (pages 2-4), the extraction system installed at New Lyme Landfill in the late 1980's was intended to:

- lower the water table to a level 20 feet below ground surface;
- control ground water flux into the Site;
- control off-Site migration of contaminants dissolved in ground water;
- stabilize the residual contaminants (in the soil);
- extract contaminants dissolved on ground water.

System Operation/Operation and Maintenance

The RA construction contract was awarded to Sevenson Environmental Services (SES) in September 1988, with Site construction activities commencing in December 1988. Part of the RA activities included the construction of a unit process Waste Water Treatment Plant (WWTP), as well as a ground water extraction system installed that consisted of 13 extraction wells located around the perimeter of the landfill area. Construction of a leachate collection system began in September 1989 and was completed in December 1989. The system was originally designed as a french drain, which discharged into manholes around the Site perimeter. On an as need basis, these manholes would manually be pumped and the leachate transferred to the WWTP for treatment. This leachate collection system was modified in June 1993, to allow for the leachate to be pumped mechanically directly to the WWTP, therefore, eliminating the need for manual pumping and the potential for spills.

Ohio EPA assumed O&M from the U.S. EPA for the WWTP on July 1994, while U.S. EPA maintained responsibility for the extraction system and the associated O&M program. In August 1994, a section of the black iron piping in extraction well # 5 connecting the stainless steel extraction well to the high density polyethylene (HDPE) main header feed system, to the WWTP ruptured, causing a complete shut-down of the treatment plant and extraction system. Following several months of negotiations with U.S. EPA concerning this issue, Ohio EPA, in the best interest of human health and the environment, pursued and obtained state funding for the project. To eliminate the potential for rupture of other extraction well piping, Ohio EPA decided to replace all the black iron piping with stainless steel in the remaining extraction wells. Additionally, each extraction well was fitted with a valve, capable of isolating each individual well from the header system. These isolation devices eliminate the need to shut down the system in the future, should additional work need to be completed on individual wells in the system. The repairs began in December 1994 and were completed in February 1995. The extraction system and the WWTP went back on-line in March 1995 and have been operational since.

In May 1996, Ohio EPA, following review and discussions of WWTP influent and effluent data, discontinued use of several treatment unit processes, which included the metals precipitation process including pH adjustment and the rotating biological contractors (RBC's) and their related nutrient feed system. There were no indications from influent analytical data that any significant metals or organics were part of the influent groundwater to the WWTP. Therefore, unit processes designed to deal with these contaminates were no longer needed. The nutrient feed system for the RBC units was actually degrading the water quality by adding such metals as zinc to the effluent stream. Currently, the WWTP operational units include a tertiary sand filter treatment and two 10,000 gallon units prior to discharge to Lebanon Creek. From the effluent analytical data, there appears to be no discharges that have been above those established to be protective of human health and the environment. The discharge limits have been orders of magnitude lower than are required to meet the current discharge limits. There appears to be no problems with the treatment train modification to date, and the plant continues to treat influent groundwater as it was designed.

Data collected during the Operational and Maintenance (O&M) at the New Lyme Landfill suggest an absence of expected change in the level of contaminants. The concentration of contaminants in the extracted ground water from the pump and treat system is lower than what was expected in the ROD. Since completion of the Remedial Action (RA) and installation of the low permeable landfill cover, there appears to be a decrease in the potentiometric surface level of the ground water in the monitoring wells and by the absence of leachate seeps, suggesting a reduction in surface water infiltration into the landfill. With the pump and treat system operational, some wells did equilibrate with artesian conditions.

V. Progress Since the Last Five-Year Review

On February 24, 1998, the First Five-Year Review was completed. A level II review was chosen based upon the above information. Additional data was collected to support recommendations in the review. With the absence of leachate seeps from the existing remedy and the other pathways continue to remain unchanged, there does not appear to be any additional risk pathways to recalculate. Therefore, recalculation of risk was not warranted at the time. Overall, the eight general recommendations from the first review were:

- Implement the new discharge limits reflective of Ohio Water Quality Limits and the Great Lakes Initiative October 31, 1997.
- Sample residential wells on an annual basis.
- Re-evaluate and define rate and extent of off-Site ground water contamination.

- Install one downgradient monitoring well cluster (3 wells) immediately to the west offSite and two side gradient monitoring well clusters (3 wells each) offSite.

- Replace the damaged monitoring well MW-20A.

- Evaluate and install additional bedrock monitoring wells to adequately monitor the entire Site and verify bedrock flow direction.

- Re-evaluate Sampling and Analysis Plan and QA/QC, concerning detection limits.

- Continue maintenance of the cap, gas system, fence, WWTP, etc.

In addition to the Five-Year Review Report, the PRPs performed ground water investigations and issued a Hydrogeological Report in December 1996, and a subsequent Remedial Alternatives Report in January 1997. U.S. EPA and Ohio EPA also conducted a Focused Feasibility Study for the Site in September 1998. These reports and the First Five-Year Review showed that the original remedial action lowered the water table but did not de-watered the landfill. On November 16, 1999, a ROD Amendment was signed.

ROD Amendment

The ROD Amendment was written due to changes in Site conditions. The amended Site Plan included the following components:

1. Shutdown of the on-Site ground water treatment plant.

2. Implementation of an amended long-term ground water monitoring program.

3. Site specific triggers that may initiate contingency plans.

4. Continued operation and maintenance of the installed cap, including leachate control if necessary, and continued Site security.

These changes to the original ROD were implemented due to a re-evaluation of the Site. In March 1998, U.S. EPA and Ohio EPA evaluated how protective the original plan was to human health and the environment. The results of this evaluation are included in the New Lyme Landfill, first Five Year Review Report. Additionally, with few exceptions, the ground water extracted from beneath the landfill showed no signs of contamination above regulatory limits. These changes to ROD were determined by U.S. EPA and Ohio EPA, to provide the same level of protectiveness in a more cost-effective manner.

The amended plan involved the discontinuation of the onSite treatment of ground water and leachate. This was accomplished through the complete shutdown of the extraction system, extraction wells, and the ground water treatment plant on July 27, 2001.

The second component to the ROD amendment included the implementation of a long-term ground water monitoring program. This program included the quarterly sampling of 19 wells, the semi-annual sampling of eight additional monitoring wells, and annual sampling of 6 residential wells. The specific wells to be sampled are listed in Table 1, and the corresponding analytical methods to be performed for these well samples are indicated in Table 2. In additional to the well sampling, the ROD Amendment stated that water-level data will be collected from all wells during each sampling event.

The third component to the ROD Amendment describes the levels of the analytical results, which will trigger a contingency plan. These triggers include all Maximum Contaminant Levels (MCLs) and (if no MCL is listed for a contaminant) a 1×10^{-5} cumulative risk level. The ROD Amendment states that if these triggers are met or exceeded, than that well will be re-sampled and analyzed for the specific contaminant. If the analysis indicates a repeated excursion, then the contingency plan will be implemented. The contingency plan will be approved by U.S. EPA and Ohio EPA, and will include details on methods to define, among other things, the rate, concentration, and extent of the release. The contingency plan is not defined, because the chosen plan will be Site and incident specific.

The last component of the ROD Amendment controls operation and maintenance of the installed cap (e.g., groundhog holes, landscaping, etc.), leachate control, if necessary, and Site security (e.g., Site inspections, fencing repair, etc.).

VI. Five-Year Review Process

Administration Components

The Five-Year Review team was led by Lolita Hill of the U.S. EPA, Remedial Project Manager (RPM) for the New Lyme Site, and included members from the Regional Technical Advisory staff with expertise in hydrology, biology, and risk assessment. The Site Coordinator, Andrew Kocher, for Ohio EPA, assisted in the report generation as the representative for the support agency. Members of the PRP Group consultants, Brown and Caldwell, Inc., were notified of the Five-Year Review in July 2002.

From July 1 to December 31, 2002, the support agency completed the following activities:

- Community Involvement
- Document Review
- Data Review
- Site Inspection
- Local Interviews
- Five-Year Review Report Development and Review.

From January to February 2003, U.S. EPA and the Ohio EPA reviewed the draft report. The comments were addressed immediately following, and a revised draft report reviewed and the final report signed by the director of the Superfund Division.

Community Involvement

Activities to involve the community in the Five-Year Review process were initiated with a Site visit in October. Ohio EPA conducted home interviews with the surrounding community residents. A letter was given to each homeowner with contact numbers and address. Comments were accepted during the month of November. The letter invited the recipients to submit any comments to Ohio EPA.

During the comment period, local residents expressed concerns that the State Wildlife Area was attracting excess people and traffic. None of the residents expressed any concerns over the protectiveness of the remedy.

Upon signature of this review, the results of the review and the report were available to the public at the New Lyme Town Library and Ohio EPA's Northeast District office.

Document Review

This Five-Year Review consisted of a review of relevant documents including O&M records and monitoring data. A major portion of these documents consisted of the recent quarterly reports beginning during the month of September 2001.

Data Review

Monitoring Well System

A series of 59 monitoring wells currently exist around the perimeter of the landfill area. Of those 59 wells, 51 of them are located on-Site, while the other 8 are

located off-Site, both up-gradient and down-gradient of the Site. Construction and installation of both on-Site and off-Site monitoring wells began in June 1989, and was completed in October 1989. The USACE contracted SES in May 1993, to conduct Site related operations for the abandonment and replacement of all the existing landfill ground water monitoring wells, which were destroyed as a result of landfill subsidence. The abandonment and replacement activities began in November 1993, and were completed in May 1994, resulting in the current 51 on-Site monitoring wells.

The monitoring wells were originally designated to be sampled on a quarterly basis and were until May 1996, when Ohio EPA reduced that frequency to twice a year. The reasoning behind this reduction in sampling frequency was the indication from analytical results that no contaminates of concern were detected above established MCL's.

Ground Water Monitoring

Ground water monitoring has been conducted at the New Lyme Site since the early 1980s. In general, most contaminants were detected at their highest levels early in the investigation (1983 and 1984). This high level followed by a drop in contaminant levels may well have been the result of removal activities eliminating significant source material.

On August 27, 2001, quarterly ground water sampling began under the revised monitoring plan per the amended ROD. The monitoring included the collection of ground water elevations (see Table 3-1) and the collection of a sample for laboratory analysis (see Table 3-2). The first quarterly sampling event was conducted to obtain representative "baseline" conditions and was considered to essentially represent pumping conditions at the Site. Every quarterly sampling event afterwards was conducted to determine if contamination would reappear after shutting down the groundwater treatment plant. In addition to looking for contaminants, samples were analyzed for typical natural attenuation parameters. Some of these additional laboratory parameters include, but are not limited to, chemical oxygen demand, chloride, nitrate, and sulfate. Table 3-2, Summary of Water Quality Data, compares all analytical results for all parameters that exceeded their corresponding reporting limit between quarterly sampling events.

Although monitored natural attenuation is being evaluated, it is very difficult to determine if monitored natural attenuation is actually occurring at the Site. This conclusion can be drawn because no plume is delineated, only perimeter wells are being sampled, and no contaminants are being detected over their corresponding triggers. However, ground water conditions can be evaluated assuming potential contaminants and their likelihood to be degraded in the current underground environment. Therefore, a determination can be made whether monitored natural attenuation would be occurring outside the landfill if contamination was detected.

To date, a detailed evaluation of the monitored natural attenuation parameters, underground environment, and likelihood of degradation has not been performed.

There is some concern that the local ground water has not recovered to ambient conditions following the shut down of the treatment plant. In general, shallow ground water flow direction at the Site continues to be to the west; however, the potentiometric map (Figure 3-1) shows a slight southernly flow at the south western portion of the landfill. Figure 3-2 shows the potentiometric surface of the intermediate aquifer. This aquifer has a flow direction toward the west. The deep aquifer shows a northern flow direction, as represented in the potentiometric surface map in Figure 3-3. Ground water levels will continue to be monitored throughout the remaining three-quarters of sampling, in order to gather additional evidence to show whether ambient conditions have been reached.

Another concern is the lack of analytical data from the deep aquifer. These monitoring wells are generally completed to a depth of 90 feet and monitor the lower zone of the bedrock aquifer. It is recommended that these wells (MW-6C, MW-9C, MW-15C, MW-17C, and MW-18C) be monitored to determine if any contaminants are penetrating vertically through the unconsolidated glacial material and the bedrock. The concern bears upon the following facts:

- The nearest residential well is within 750 feet of the Site.
- The nearest residential well is located to the north, the direction of the deep aquifer flow.
- Some of the residential wells extract ground water from the deep aquifer zone.
- The landfill contains DNAPLs, which tend to migrate vertically prior to migrating horizontally, potentially traveling underneath the intermediate monitoring wells.

Private Drinking Water Monitoring

Drinking water well monitoring has been conducted annually since August/September, 2001. Table 1 shows the name and addresses of the residential wells sampled and Table 2 shows the analytical methods conducted on the samples collected. Both sampling events found that all contaminants of concern were below detection limits. A few metals (iron, manganese, and sodium) were detected at levels below their respective secondary drinking water standards (see Table 3-2).

Site Inspection

Inspections at the Site were conducted on October 24th, and November 14, 2002, by the Ohio EPA Site Coordinator and Brown and Caldwell Environmental Engineering & Consulting, the PRPs representatives (See Attachment A). The purpose of the inspections was to assess the protectiveness of the remedy, including the presence of fencing to restrict access, the integrity of the cap, and the condition of the gas venting system. The resulting lake built nearby to supply the clay for the landfill cap was also visually inspected.

No significant issues have been identified at any time regarding the cap, the drainage structures, or the fence. Examination of the cap revealed that there had been some subsidence in various locations, some of these locations contained standing water. All of these "low spots" were located on the eastern portion of the cap.

A few other minor issues were observed during the Site inspection included corroded locks and missing fence clips at a few locations along the perimeter fence. Also, there was a lack of perimeter "No Trespassing" signs to deter unauthorized access to the landfill and former treatment plant. Although these issues were noted during this review, they do not affect the protectiveness of the remedy. These minor issues were brought to the PRP's attention and locks, fence clips, and signs were replaced prior to the completion of this review.

Interviews

Interviews were conducted with various parties connected to the Site. Ray and Vera Kaderly, owner of nearby residential property, were interviewed on October 24, 2002. Three other nearby residents, Sherry Monroe, John Mezinger, and Genevieve Draid, were supplied with interview questionnaires, and responded on October 28, 2002 (See Attachment A). No significant problems regarding the Site were identified during the interviews. However, Mr. Mezinger did note that traffic has increased due to the public access to Public Hunting and Fishing Area.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The review of documents, Applicable or Relevant and Appropriate Requirements (ARARs), risk assumptions, and the results of the Site Inspection (SI), indicates that the remedy is functioning as intended by the ROD, and as modified by the ROD Amendment. The stabilization and capping of contaminated soils and sediments has achieved the remedial objectives to minimize the migration of contaminants to ground water and surface water, and prevent direct contact with, or ingestion of,

contaminants in soil and sediments. The effective implementation of institutional controls has prevented exposure to, or ingestion of, contaminated ground water.

Operation and maintenance of the cap and drainage structures has, on the whole, been effective. A few small areas showed evidence of "low spots." The low spots did not penetrate beyond the cap, and, so, did not affect protectiveness. However, the PRP's have agreed to properly repair these areas. O&M annual costs have decreased below original estimates and there are no indications of any difficulties with the remedy.

The institutional controls that are in place include prohibitions on the use or disturbance of groundwater, excavation activities, disturbance of the cap, and any other activities or actions that might interfere with the implemented remedy. No activities were observed that would have violated the institutional controls. The cap and the surrounding area were undisturbed, and no new uses of ground water were observed at the Site. However, the PRP has agreed to properly repair the "low spots" in the cap, which may temporarily affect the institutional control in the near future.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy.

Changes in Standards and To Be Considered

As the remedial work has been completed, most ARARs for soil contamination cited in the ROD have been met. ARARs that still must be met, at this time, and that have been evaluated include: the Safe Drinking Water Act (SDWA) (40 CFR 141.11-141.16) from which many of the groundwater cleanup levels were derived - [Maximum Contaminant Levels (MCLs), and MCL Goals]; and ARARs related to post-closure monitoring. A revised and updated list of ARARs is included in Attachment B.

There is one new standard that will affect the protectiveness of the remedy. The MCL for arsenic has been decreased from 50 ug/L to 10 ug/L. This change in the MCL is more protective for human health when concerning direct human consumption via a public water supply system. This new MCL will become effective beginning on January 23, 2006. Therefore, this change will be implemented at the Site before the next Five-Year Review. Additionally, numerous metals, including arsenic, have been detected in up-gradient and side-gradient wells. Initially, it was considered to implement a change in the ROD Amendment to eliminate the resampling of up-gradient wells. However, due to the concern that the local ground

water has not recovered to ambient conditions, the up-gradient wells will be treated the same as the rest of the wells, as specified in the ROD Amendment. Ohio EPA does recommend that this issue be re-evaluated following completion of the eight quarters of sampling and final report.

Changes in Exposure Pathways, Toxicity, and Other Contaminant Characteristics

The exposure assumptions used to develop the Human Health Risk Assessment included both current exposures (older child trespasser, adult trespasser) and potential future exposures (young and older future child resident, future adult resident and future adult worker). There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. No change to these assumptions, or the cleanup levels developed from them is warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy. The remedy is progressing as expected, and it is expected that all ground water monitoring levels will remain within the ROD Amendment's prescribed limits.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

Analytical results from the ground water monitoring have not indicated a concern of the protectiveness of the remedy. Ecological targets were not identified during the baseline risk assessment and none were identified during the first Five-Year Review and, therefore, monitoring of ecological targets is not necessary. No weather-related events have affected the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to the data reviewed, the SI, and the interviews, the remedy is functioning as intended by the ROD and as modified by the ROD Amendment. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. Most ARARs for soil contamination cited in the ROD have been met. There has been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

VIII. Issues

Table 4 - Issue

Issue	Currently Affects Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Evidence of corroded locks and missing fence clips at a few locations along the perimeter fencing.	N	N
Lack of perimeter “No Trespassing” signs to deter unauthorized access to the landfill and former treatment plant.	N	N
Numerous areas where subsidence has occurred (low spots) located on the eastern portion of the landfill.	N	Y
Inadequate monitoring data to verify that the plume is not migrating within the deep aquifer (lower zone of the bedrock aquifer).	N	Y
Lack of analytical projections to predict length of time until ground water cleanup goals will be achieved.	N	N
High arsenic levels at the Site.	N	N

IX. Recommendations and Follow-Up Actions

Table 5 - Recommendations and Follow-Up Actions

Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
					Current	Future
Subsidence of cap	1) Develop plan to repair "low spots". 2) Submit plan to EPA for approval. 3) Conduct repair activities.	PRPs	State/EPA	6/30/2003	N	Y
Inadequate monitoring within the deep aquifer	Conduct periodic sampling of the following wells: MW-6C, MW-9C, MW-15C, MW-17C, MW-18C. The sampling frequency and analyses will be determined following a ESD or ROD Amendment in 2003.	PRPs	State/EPA	12/30/03	N	Y
Lack of analytical projections	Conduct analytical projections, determine length of time until ground water cleanup goals will be achieved.	PRPs	State/EPA	12/30/03	N	N
High arsenic levels	Further investigate high arsenic levels. Determine new trigger level before new MCL is in effect.	PRPs	State/EPA	12/30/03	N	N

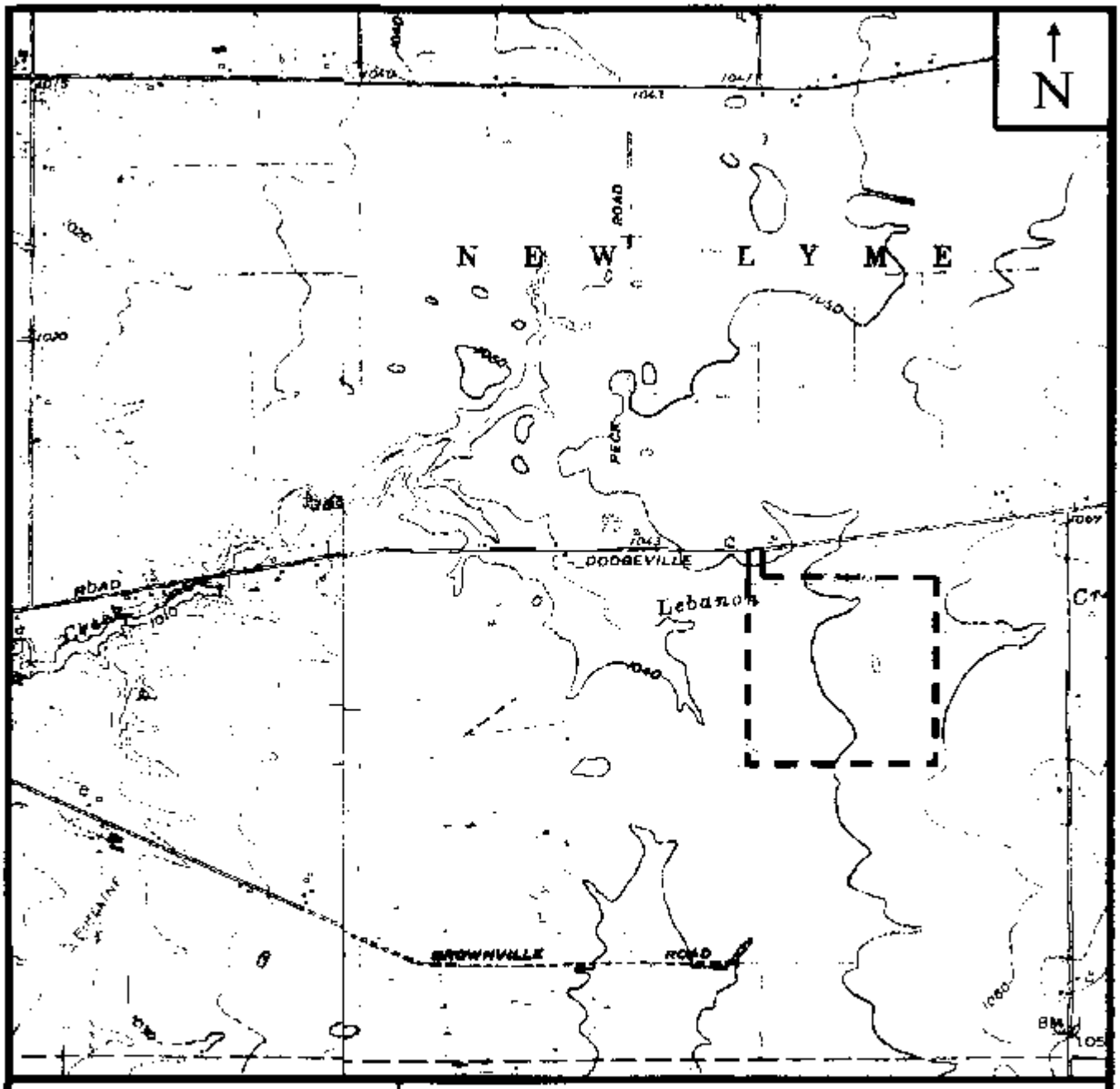
IX. Protectiveness Statement

The remedy is expected to continue to be protective of human health and the environment. This natural attenuation process will be continuously monitored and evaluated to project when the cleanup goals will be achieved. In the interim, exposure pathways that could result in unacceptable risks are being controlled and institutional controls are preventing exposure to, or the ingestion of, contaminated ground water. All threats at the Site have been addressed through stabilization and capping of contaminated soil, sediments, and ash, the installation of fencing and warning signs, and the implementation of institutional controls.

Long-term protectiveness of the remedial action will be verified by obtaining additional ground water samples to fully evaluate potential migration of the contaminant plume downgradient from the landfill area. Current data indicate that the plume remains on Site. Additional sampling and analysis will be completed within the next six months. Current monitoring data indicate that the remedy is functioning as required.

XI. Next Review

The next Five-Year Review for the New Lyme Landfill Site is required 5 years from the signature of this report (February 2008).



LEGEND

Approximate boundary of landfill

NEW LYME LANDFILL SITE
NEW LYME, ASHTABULA COUNTY, OHIO

FIGURE 1: SITE LOCATION MAP

Ohio Environmental Protection Agency

SCALE : NOT TO SCALE

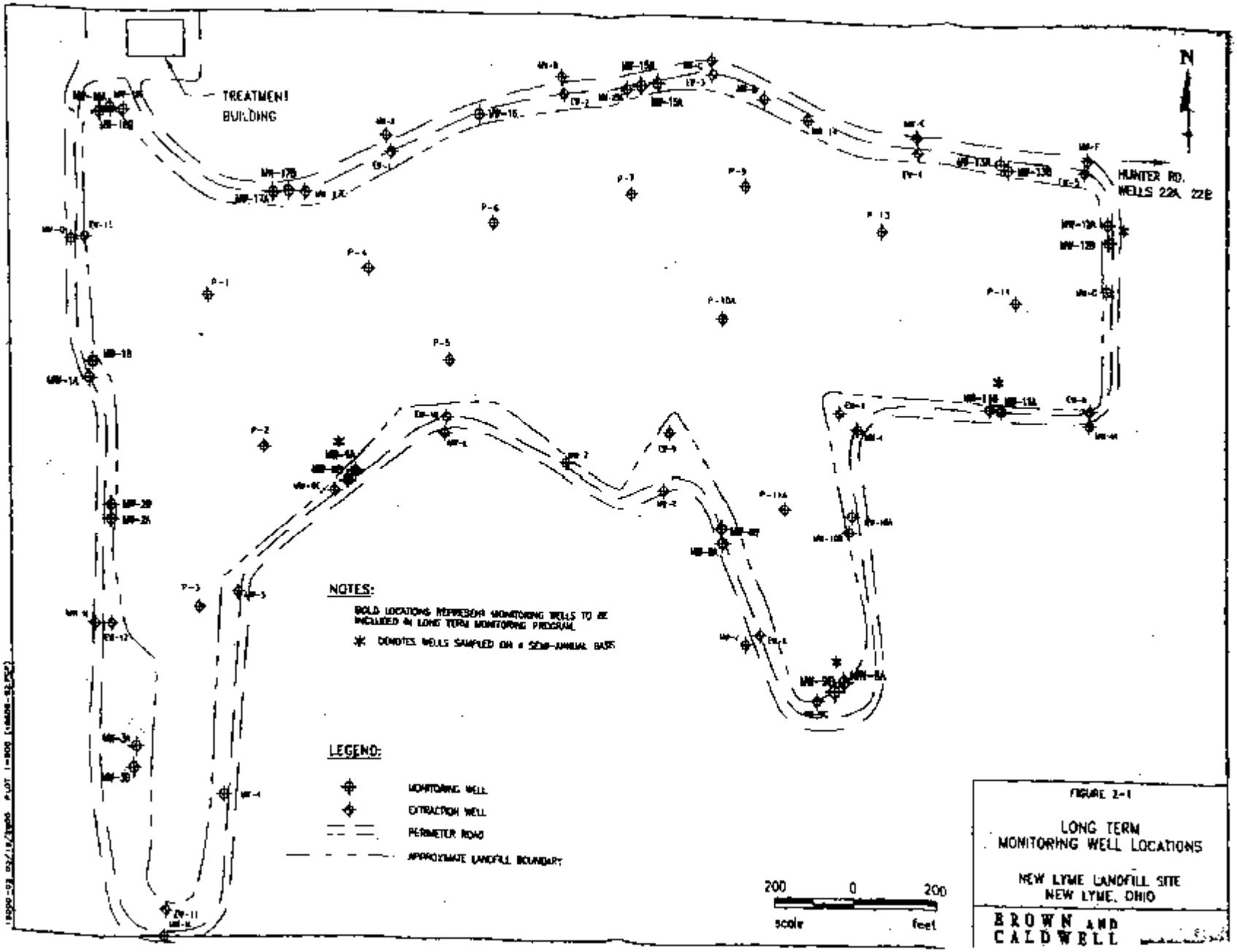


FIGURE 2-1

LONG TERM
MONITORING WELL LOCATIONS

NEW LYME LANDFILL SITE
NEW LYME, OHIO

BROWN AND CALDWELL

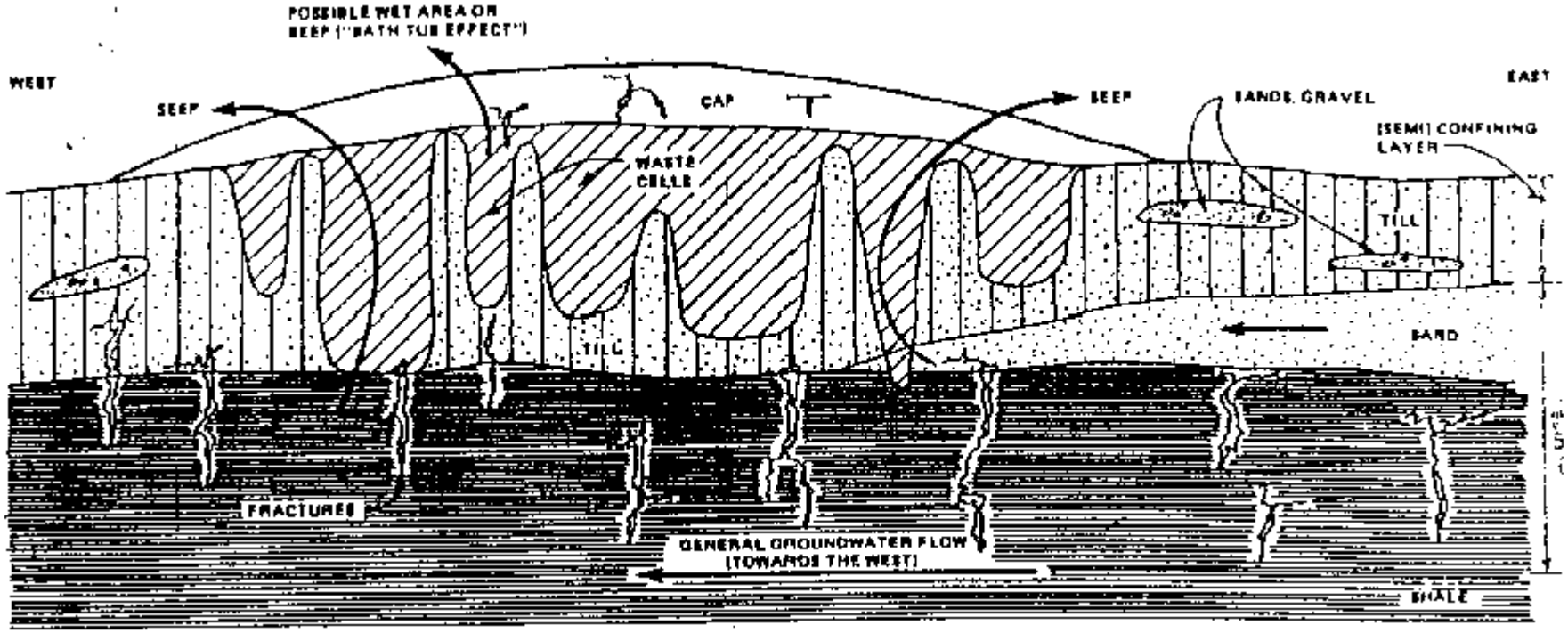
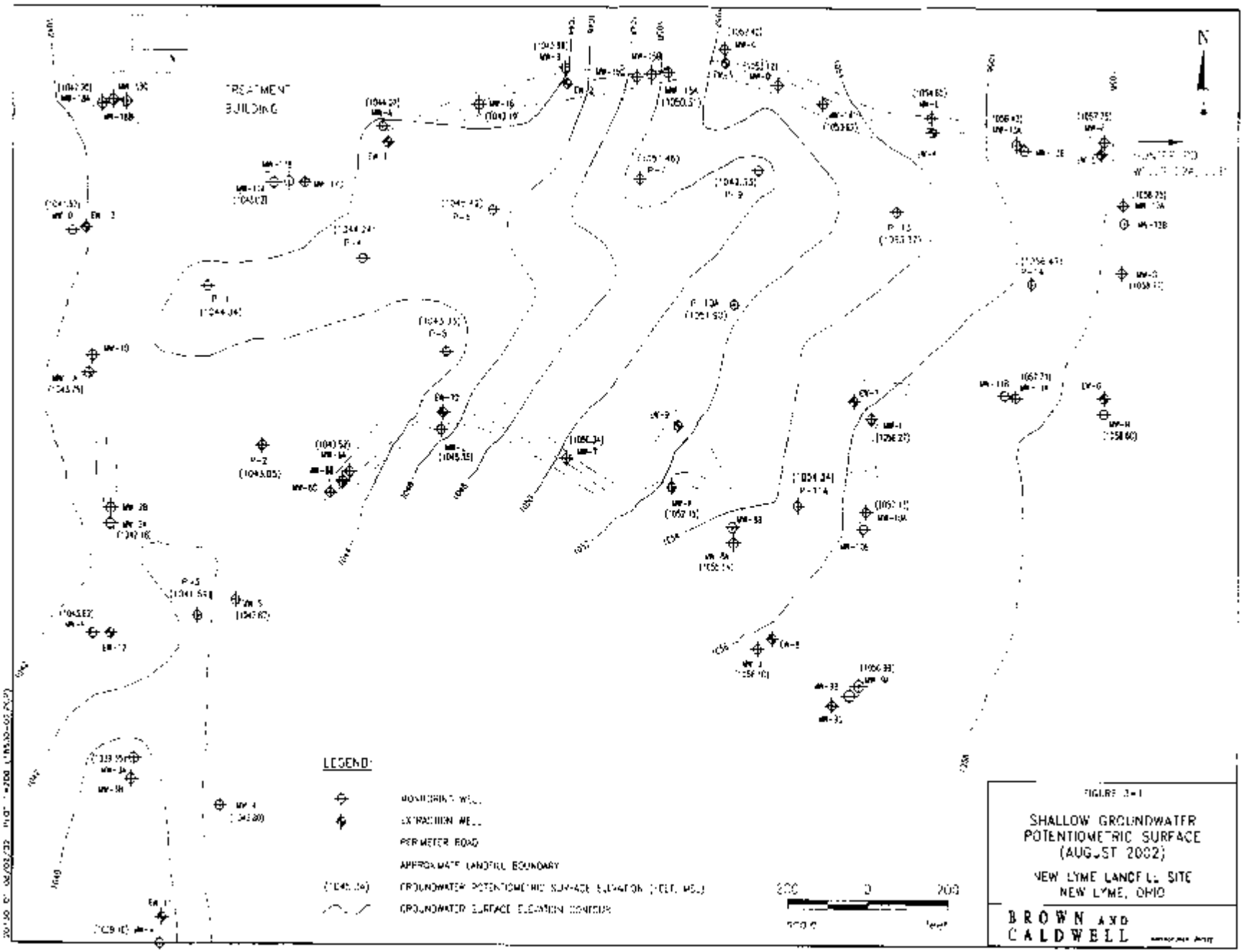


FIGURE 2-2
SCHEMATIC HYDROGEOLOGIC CROSS SECTION
NEW LYME LANDFILL


TREATMENT BUILDING
N
LEGEND:
MONITORING WELL
EXTRACTION WELL
PERIMETER ROAD
APPROXIMATE LANDFILL BOUNDARY
GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION (FEET MSL)
GROUNDWATER SURFACE ELEVATION CONTOUR
200
0
200
FIGURE 3-1
SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE (AUGUST 2002)
NEW LYME LANDFILL SITE
NEW LYME, OHIO
BROWN AND CALDWELL

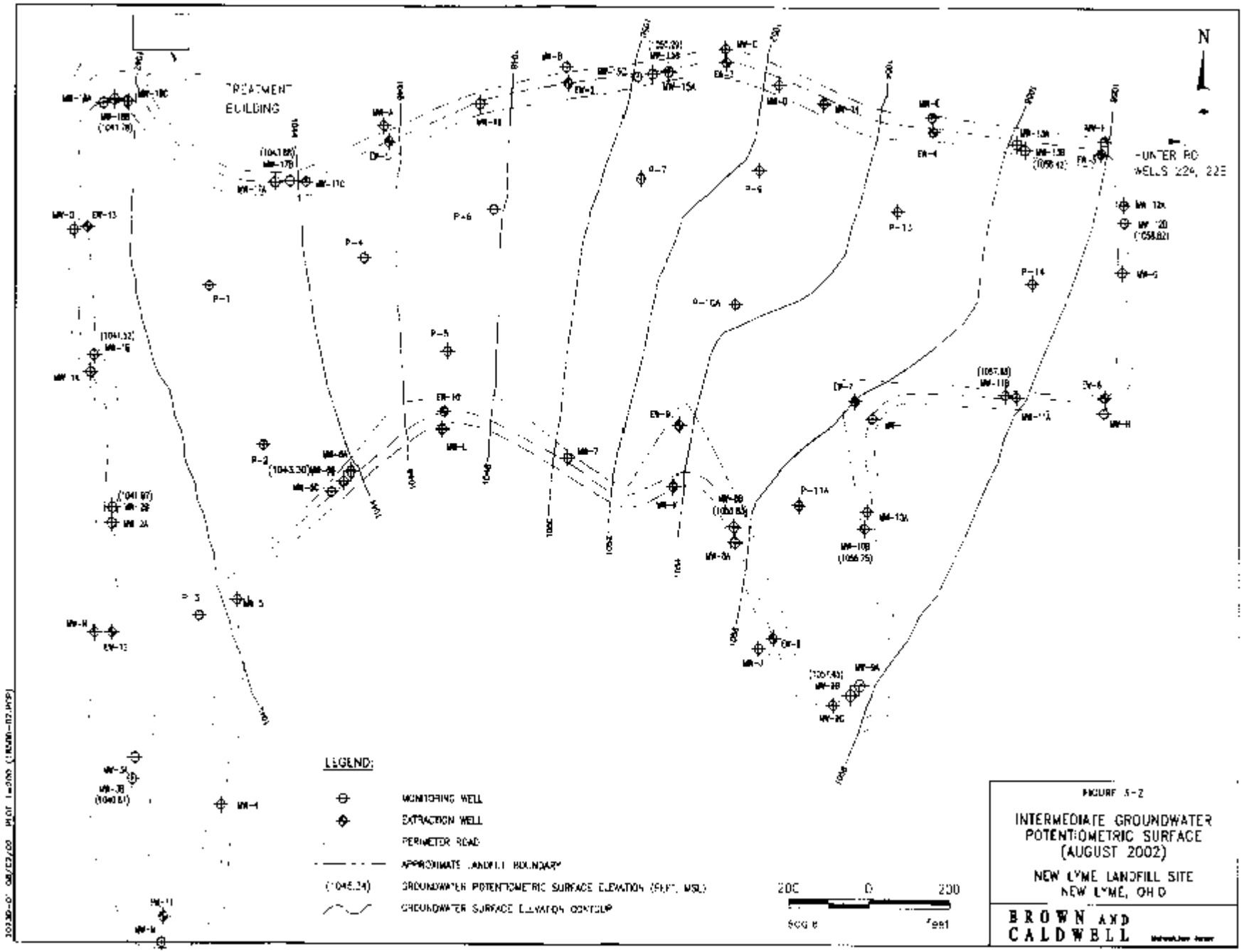


FIGURE 5-2

INTERMEDIATE GROUNDWATER POTENTIOMETRIC SURFACE (AUGUST 2002)

NEW LYME LANDFILL SITE
NEW LYME, OHIO

BROWN AND CALDWELL

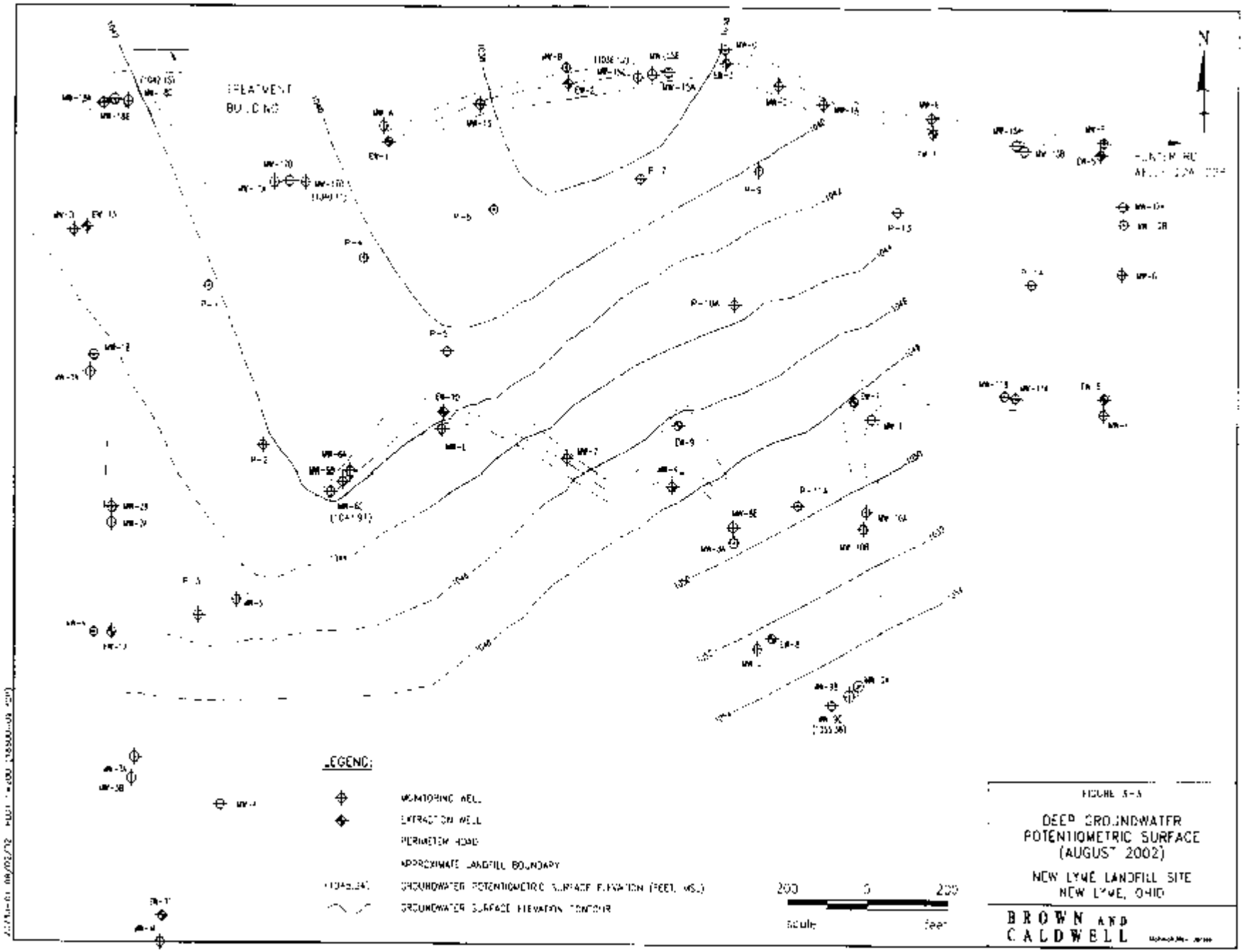


FIGURE 5-5

DEEP GROUNDWATER
POTENTIOMETRIC SURFACE
(AUGUST 2002)

NEW LYME LANDFILL SITE
NEW LYME, OHIO

BROWN AND CALDWELL

TABLE 1
MONITORING WELLS AND SAMPLE FREQUENCY FOR
INCLUSION IN THE LONG-TERM MONITORING PLAN
NEW LYME LANDFILL

Monitoring Wells Sampled Quarterly	Monitoring Wells Sampled Semi-Annually	Residential Wells		
		Name	Address	ID#
MW-1A	MW-6A	Raymond Kaderly	1266 Dodgeville Road	D01
MW-1B	MW-6B	Clara Mezinger	1550 Dodgeville Road	D03
MW-2A	MW-9A	Sherry Monroe	1576 Dodgeville Road	D15
MW-2B	MW-9B	Don Offutt	1590 Dodgeville Road	D05
MW-3A	MW-11A	Tom Wallace	1630 Dodgeville Road	D09
MW-3B	MW-11B	Chester Woznak	1789 Dodgeville Road	D04
MW-8A	MW-12A			
MW-8B	MW-12B			
MW-13A				
MW-13B				
MW-15A				
MW-15B				
MW-16				
MW-17A				
MW-17B				
MW-18A				
MW-18B				
MW-22A				
MW-22B				

TABLE 2
MONITORING WELL ANALYSES FOR
INCLUSION IN THE LONG-TERM MONITORING PLAN
NEW LYME LANDFILL

Analyses	Method #	Monitoring Wells Sampled Quarterly	Monitoring Wells Sampled Semi-Annually	Residential Wells Sampled Annually
VOCs	8260	Yes	Yes	Yes
SVOCs	8270	Yes	Yes	No
Inorganics	7470A	Yes	Yes	No
TDS	E160.1	Yes	Yes	Yes
Total Cyanide	E335.2	Yes	Yes	No
COD	E410.1	Yes	Yes	Yes
Total Chloride	E300	Yes	Yes	Yes
Ammonia as N	E350.2	Yes	Yes	Yes
Nitrate + Nitrite	E353.3	Yes	Yes	Yes
Sulfate	E375.4	Yes	Yes	Yes
Turbitity	E180.1	Yes	Yes	Yes
Fe, Mn, and Na	6010A	Yes	Yes	Yes
Herbicides	8151	Yes*	Yes	No
Pesticides/PCBs	8081	Yes*	Yes	No

Key:

*	=	Samples only collected during semi-annual well sampling events.
VOCs	=	Volatile Organic Compounds.
SVOCs	=	Semi-Volatile Organic Compounds.
Inorganics	=	19 Target Analyte List Metals.
TDS	=	Total Dissolved Solids.
COD	=	Chemical Oxygen Demand.
N	=	Nitrate.
Fe, Mn, and Na	=	Iron, Manganese, and Sodium.
PCBs	=	Polychlorinated Biphenyls.

TABLE 3-1

WELL DEPTH AND GROUNDWATER ELEVATION DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well	WELL DEPTHS			GROUNDWATER ELEVATIONS										
					1st Round		2nd Round		3rd Round		4th Round		5th Round	
	Original Total Depth (ft)	Measured Total Depth (ft)	Difference (ft)	Reference Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)
On-site Wells														
MW-1A	30.67	30.55	0.12	1050.74	8.53	1042.21	6.94	1043.80	5.26	1045.48	5.35	1045.39	6.99	1043.75
MW-1B	45.85	37.23	8.62	1050.64	11.49	1039.15	11.37	1039.27	7.69	1042.95	6.10	1044.54	9.12	1041.52
MW-2A	31.03	29.87	1.16	1050.38	11.14	1039.24	12.61	1037.77	6.06	1044.32	5.51	1044.87	8.20	1042.18
MW-2B	46.46	37.49	8.97	1050.32	11.14	1039.18	10.68	1039.64	7.04	1043.28	5.65	1044.67	8.35	1041.97
MW-3A	30.79	30.73	0.06	1045.35	7.49	1037.86	7.30	1038.05	3.65	1041.70	3.26	1042.09	6.00	1039.35
MW-3B	45.83	39.35	6.48	1045.35	7.13	1038.22	7.03	1038.32	2.86	1042.49	1.87	1043.48	4.54	1040.81
MW-4	30.77	30.63	0.14	1046.23	4.64	1041.59	3.79	1042.44	0.00	Artesian	-0.39	1046.62	3.43	1042.80
MW-5	30.66	30.45	0.21	1047.32	5.57	1041.75	4.68	1042.64	1.15	1046.17	0.76	1046.56	4.45	1042.87
MW-6A	30.72	29.07	1.65	1049.67	8.27	1041.40	7.18	1042.49	3.06	1046.61	2.90	1046.77	6.15	1043.52
MW-6B	42.68	42.42	0.26	1049.67	8.66	1041.01	7.78	1041.89	4.05	1045.62	3.30	1046.37	6.37	1043.30
MW-6C	89.23	89.08	0.15	1049.71	17.16	1032.55	12.63	1037.08	9.97	1039.74	7.50	1042.21	7.80	1041.91
MW-7	30.36	29.43	0.93	1053.43	7.18	1046.25	6.22	1047.21	3.36	1050.07	2.96	1050.47	3.09	1050.34
MW-8A	30.49	29.77	0.72	1056.83	2.57	1054.26	1.98	1054.85	0.00	Artesian	0.75	1057.58	1.19	1055.64
MW-8B	45.21	45.10	0.11	1056.80	2.78	1054.02	2.16	1054.64	0.00	Artesian	-0.76	1057.56	0.97	1055.83
MW-9A	30.28	29.33	0.95	1058.18	1.66	1056.52	1.71	1056.47	0.00	Artesian	-0.85	1059.03	1.19	1056.99
MW-9B	44.57	44.46	0.11	1058.19	2.73	1055.46	7.80	1050.39	0.00	Artesian	0.71	1058.90	0.74	1057.45
MW-9C	90.94	88.03	2.91	1058.24	4.69	1053.55	4.06	1054.18	2.42	1055.82	2.45	1055.79	2.88	1055.36

TABLE 3-1

WELL DEPTH AND GROUNDWATER ELEVATION DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

	WELL DEPTHS			GROUNDWATER ELEVATIONS										
					1st Round		2nd Round		3rd Round		4th Round		5th Round	
Well	Original Total Depth (ft)	Measured Total Depth (ft)	Difference (ft)	Reference Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)
On-site Wells														
MW-10A	30.15	28.96	1.19	1058.88	2.97	1055.91	2.67	1056.21	1.20	1057.68	0.12	1058.76	1.75	1057.13
MW-10B	46.49	45.41	1.08	1058.96	2.81	1056.15	2.69	1056.27	1.15	1057.81	0.19	1058.77	2.21	1056.75
MW-11A	30.39	30.28	0.11	1060.96	3.57	1057.39	3.68	1057.28	2.18	1058.78	1.22	1059.74	3.25	1057.71
MW-11B	47.90	46.52	1.38	1060.94	3.85	1057.09	3.79	1057.15	2.23	1058.71	1.52	1059.42	3.26	1057.68
MW-12A	30.44	30.82	0.38	1061.16	2.48	1058.68	2.81	1058.35	1.49	1059.67	0.31	1060.85	2.41	1058.75
MW-12B	43.80	43.71	0.09	1061.23	2.94	1058.29	5.25	1055.98	2.57	1058.66	1.37	1059.86	2.41	1058.82
MW-13A	30.46	30.32	0.14	1056.32	0.00	Artesian	0.00	Artesian	0.00	Artesian	-2.08	1058.40	-0.11	1056.43
MW-13B	41.50	40.80	0.70	1056.35	2.45	1053.90	15.82	1040.53	0.00	Artesian	-2.23	1058.58	-0.07	1056.42
MW-14	30.80	29.35	1.45	1053.81	1.44	1052.37	0.85	1052.96	0.00	Artesian	-2.08	1055.89	0.14	1053.67
MW-15A	30.87	30.08	0.79	1052.98	3.92	1049.06	3.10	1049.88	1.20	1051.78	0.15	1052.83	2.67	1050.31
MW-15B	35.90	35.81	0.09	1053.01	3.85	1049.16	3.32	1049.69	2.32	1050.69	0.16	1052.85	2.72	1050.29
MW-15C	90.62	90.60	0.02	1053.08	31.94	1021.14	18.00	1035.08	18.82	1034.26	18.19	1034.89	16.96	1036.12
MW-16	30.67	27.86	2.81	1049.91	7.34	1042.57	6.56	1043.35	3.02	1046.89	2.62	1047.29	6.72	1043.19
MW-17A	29.76	28.63	1.13	1048.20	5.88	1042.32	5.06	1043.14	1.54	1046.66	1.11	1047.09	5.18	1043.02
MW-17B	34.13	34.04	0.09	1048.21	6.16	1042.05	5.29	1042.92	2.07	1046.14	1.47	1046.74	4.33	1043.88
MW-17C	91.33	91.27	0.06	1048.28	13.94	1034.34	12.00	1036.28	8.85	1039.43	7.67	1040.61	7.57	1040.71
MW-18A	30.21	30.10	0.11	1048.45	7.09	1041.36	6.79	1041.66	5.03	1043.42	4.55	1043.90	6.25	1042.20
MW-18B	42.06	41.95	0.11	1048.44	8.16	1040.28	7.97	1040.47	4.75	1043.69	4.25	1044.19	6.68	1041.76

TABLE 3-1

WELL DEPTH AND GROUNDWATER ELEVATION DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well	WELL DEPTHS			GROUNDWATER ELEVATIONS										
					1st Round		2nd Round		3rd Round		4th Round		5th Round	
	Original Total Depth (ft)	Measured Total Depth (ft)	Difference (ft)	Reference Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)
On-site Wells														
MW-18C	90.49	90.35	0.14	1048.40	8.18	1040.22	8.18	1040.22	7.18	1041.22	4.22	1044.18	6.25	1042.15
MW-A	30.24	30.27	0.03	1049.03	6.51	1042.52	5.61	1043.42	2.30	1046.73	1.79	1047.24	4.96	1044.07
MW-B	30.21	28.87	1.34	1051.94	8.92	1043.02	8.39	1043.55	4.86	1047.08	4.11	1047.83	8.05	1043.89
MW-C	30.93	30.86	0.07	1053.77	2.70	1051.07	1.77	1052.00	0.00	Artesian	-1.05	1054.82	1.37	1052.40
MW-D	30.48	30.40	0.08	1054.74	2.85	1051.89	2.01	1052.73	0.00	Artesian	-0.64	1055.38	1.62	1053.12
MW-E	29.72	29.62	0.10	1054.39	1.40	1052.99	0.59	1053.80	0.00	Artesian	2.49	1056.88	-0.46	1054.85
MW-F	29.64	29.58	0.06	1058.02	1.22	1056.80	0.68	1057.34	0.00	Artesian	2.17	1060.19	0.27	1057.75
MW-G	30.19	30.14	0.05	1061.93	3.20	1058.73	3.60	1058.33	2.13	1059.80	1.11	1060.82	3.16	1058.77
MW-H	30.23	30.15	0.08	1061.00	2.36	1058.64	2.73	1058.27	1.26	1059.74	0.29	1060.71	2.40	1058.60
MW-I	29.55	29.43	0.12	1060.59	5.09	1055.50	4.81	1055.78	3.61	1056.98	2.27	1058.32	4.32	1056.27
MW-J	29.79	29.81	0.02	1056.36	1.99	1054.37	0.76	1055.60	0.00	Artesian	1.86	1058.22	0.26	1056.10
MW-K	30.69	30.70	0.01	1055.95	7.50	1048.45	6.11	1049.84	3.80	1052.15	3.05	1052.90	3.80	1052.15
MW-L	30.67	30.68	-0.01	1051.51	9.04	1042.47	8.00	1043.51	4.47	1047.04	3.61	1047.90	6.16	1045.35
MW-M	30.91	30.91	0.00	1045.05	7.57	1037.48	7.25	1037.80	5.24	1039.81	3.59	1041.46	5.95	1039.10
MW-N	30.52	30.51	0.01	1047.08	8.86	1038.22	8.68	1038.40	4.08	1043.00	2.80	1044.28	3.46	1043.62
MW-O	30.87	30.53	0.34	1050.57	11.00	1039.57	11.07	1039.50	8.15	1042.42	6.31	1044.26	8.95	1041.62

TABLE 3-1

WELL DEPTH AND GROUNDWATER ELEVATION DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well	WELL DEPTHS			GROUNDWATER ELEVATIONS										
					1st Round		2nd Round		3rd Round		4th Round		5th Round	
	Original Total Depth (ft)	Measured Total Depth (ft)	Difference (ft)	Reference Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)
Off-site Wells														
MW 20B*	NA	33.04	NA	1048.07	12.23	1035.84	13.02	1035.05	10.52	1037.55	10.00	1038.07	12.41	1035.66
MW-20C*	NA	45.98	NA	1047.84	11.95	1035.89	12.80	1035.04	10.16	1037.68	9.66	1038.18	12.08	1035.76
MW 21A*	NA	33.69	NA	1054.17	10.16	1044.01	12.65	1041.52	5.87	1048.30	5.81	1048.36	10.77	1043.40
MW 21B*	NA	48.51	NA	1053.82	9.04	1044.78	11.61	1042.21	7.05	1046.77	6.57	1047.25	11.41	1042.41
MW-22A**	NA	32.48	NA	1065.43	5.38	1060.05	5.88	1059.55	4.30	1061.13	5.40	1060.03	5.78	1059.65
MW-22B**	NA	48.90	NA	1065.15	5.52	1059.63	5.95	1059.20	4.41	1060.74	3.64	1061.51	5.85	1059.30
MW-22C**	NA	97.21	NA	1064.95	7.34	1057.61	7.31	1057.64	6.00	1058.95	3.54	1061.41	6.25	1058.70
Piezometers														
P-1	NA	35.55	NA	1063.30	NA	NA	18.75	1044.55	18.46	1044.84	19.95	1043.35	18.96	1044.34
P-2	NA	32.65	NA	1063.61	NA	NA	32.65	1030.96	16.55	1047.06	16.50	1047.11	20.56	1043.05
P-3	NA	22.40	NA	1059.08	NA	NA	22.40	1036.68	17.93	1041.15	17.87	1041.21	17.49	1041.59
P-4	NA	27.73	NA	1064.43	NA	NA	27.73	1036.70	20.15	1044.28	20.23	1044.20	20.19	1044.24
P-5	NA	21.67	NA	1063.30	NA	NA	21.67	1041.63	20.05	1043.25	19.92	1043.38	19.97	1043.33
P-6	NA	22.96	NA	1065.78	NA	NA	22.96	1042.82	20.05	1045.73	20.43	1045.35	20.36	1045.42
P-7	NA	21.57	NA	1068.67	NA	NA	21.57	1047.10	17.15	1051.52	16.65	1052.02	17.21	1051.46
P-9	NA	22.20	NA	1066.61	NA	NA	22.20	1044.41	19.16	1047.45	18.19	1048.42	17.28	1049.33

TABLE 3-1

WELL DEPTH AND GROUNDWATER ELEVATION DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well	WELL DEPTHS			GROUNDWATER ELEVATIONS										
					1st Round		2nd Round		3rd Round		4th Round		5th Round	
	Original Total Depth (ft)	Measured Total Depth (ft)	Difference (ft)	Reference Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)	Depth to Water (ft)	Groundwater Elevation (ft, msl)
Piezometers														
P-10A	NA	28.08	NA	1072.85	NA	NA	28.08	1044.77	20.95	1051.90	20.51	1052.34	20.95	1051.90
P-11A	NA	22.54	NA	1068.96	NA	NA	22.54	1046.42	15.28	1053.68	14.63	1054.33	14.62	1054.34
P-13	NA	23.00	NA	1070.02	NA	NA	23.00	1047.02	18.74	1051.28	18.01	1052.01	16.65	1053.37
P-14	NA	17.70	NA	1072.66	NA	NA	17.70	1054.96	16.56	1056.10	16.56	1056.10	16.19	1056.47

* = Measured from top of protective casing.
** = Measured from top of riser.
NA = Not available.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Date Sampled					Arsenic					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells												
MW-1A	Downgradient	9/10/01	11/19/01	2/28/02	5/29/02	8/23/02	<0.020	<0.010	<0.0050	<0.0050	<0.0050	
MW-1ADup	Downgradient	9/10/01	-	-	5/29/02	8/23/02	<0.020	-	-	<0.0050	<0.0050	
MW-1B	Downgradient	9/10/01	11/19/01	2/28/02	5/29/02	8/23/02	<0.020	<0.010	0.00833	<0.0050	0.01140	0.050
MW-1BDup	Downgradient	-	11/19/01	2/28/02	-	-	-	<0.010	0.0093	-	-	0.050
MW-2A	Downgradient	9/10/01	11/16/01	2/28/02	5/28/02	8/22/02	<0.020	0.0114		<0.0050	<0.010	0.050
MW-2B	Downgradient	9/10/01	11/19/01	2/28/02	5/29/02	8/22/02	<0.020	<0.010	0.0058	<0.0050	0.0150	0.050
MW-3A	Downgradient	9/7/01	11/16/01	2/27/02	5/28/02	8/21/02	0.0276	0.0276	0.0317	0.0277	0.0465	0.050
MW-3B	Downgradient	9/7/01	11/16/01	2/27/02	5/28/02	8/21/02	<0.020	<0.010	0.0131	<0.0050	0.00705	0.050
MW-6A	Sidegradient-S	9/7/01	-	2/27/02	5/28/02	-	<0.020	-	0.0113	<0.0050	-	0.050
MW-6ADup	Sidegradient-S	9/7/01	-	-	-	-	<0.020	-	-	-	-	
MW-6B	Sidegradient-S	9/7/01	-	2/27/02	5/28/02	-	<0.020	-	0.00861	0.0148	-	0.050
MW-8A	Sidegradient-S	9/6/01	11/15/01	2/27/02	5/24/02	8/21/02	0.0426			0.0342	0.0348	0.050
MW-8B	Sidegradient-S	9/6/01	11/16/01	2/27/02	5/24/02	8/21/02	<0.020	0.0105	0.0144	<0.0050	0.0171	0.050
MW-9A	Sidegradient-S	9/6/01	-	2/26/02	5/23/02	-	0.0325	-	0.0203	0.0144	-	0.050
MW-9B	Sidegradient-S	9/6/01	-	2/26/02	5/23/02	-	<0.020	-	0.0166	0.00872	-	0.050
MW-11A	Upgradient-S	9/5/01	-	2/26/02	5/23/02	-	<0.020	-	0.00913	<0.0050	-	0.050
MW-11ADup	Upgradient-S	9/5/01	-	2/26/02	5/23/02	-	<0.020	-	0.0096	0.00639	-	0.050
MW-11B	Upgradient-S	9/5/01	-	2/26/02	5/24/02	-	<0.020	-	0.00864	<0.0050	-	0.050
MW-12A	Upgradient	9/5/01	-	2/25/02	5/23/02	-	<0.020	-	0.0133	0.0110	-	0.050
MW12B	Upgradient	9/5/01	-	2/25/02	5/23/02	-	<0.020	-	0.00728	<0.0050	-	0.050

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Barium						Beryllium					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells													
MW-1A	Downgradient	0.0917	0.0889	0.0859	0.0673	0.0628	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-1ADup	Downgradient	0.0881	-	-	0.0706	0.0554	1	<0.0050	-	-	<0.0040	<0.0010	
MW-1B	Downgradient	0.0943	0.0918	0.105	0.114	0.100	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-1BDup	Downgradient	-	0.0916	0.104	-	-	1	-	<0.0040	<0.0040	-	-	
MW-2A	Downgradient	0.0979	0.129	0.47	0.0564	0.0457	1	<0.0050	<0.0040		<0.0040	<0.0010	0.004
MW-2B	Downgradient	0.055	0.048	0.0518	0.0548	0.0512	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-3A	Downgradient	0.155	0.141	0.155	0.130	0.117	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-3B	Downgradient	0.105	0.110	0.139	0.115	0.1050	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-6A	Sidegradient-S	0.076	-	0.0872	0.0721	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW-6ADup	Sidegradient-S	0.074	-	-	-	-	1	<0.0050		-	-	-	
MW-6B	Sidegradient-S	0.133	-	0.132	0.0883	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW-8A	Sidegradient-S	0.0737	0.0747	0.0913	0.0830	0.0664	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-8B	Sidegradient-S	0.0286	0.0274	0.0353	0.0309	0.0290	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-9A	Sidegradient-S	0.0837	-	0.0854	0.0785	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW-9B	Sidegradient-S	0.0439	-	0.103	0.0627	-	1	<0.0050		<0.0040	<0.0040		
MW-11A	Upgradient S	0.0748	-	0.0855	0.0823	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW-11ADup	Upgradient-S	0.0229	-	0.084	0.0807	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW-11B	Upgradient-S	0.053	-	0.0595	0.0600	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW-12A	Upgradient	0.0754	-	0.0835	0.0879	-	1	<0.0050	-	<0.0040	<0.0040	-	
MW12B	Upgradient	0.0213	-	0.0242	0.0244	-	1	<0.0050	-	<0.0040	<0.0040	-	

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Chromium						Lead					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells													
MW-1A	Downgradient	<0.010	<0.0070	0.0125	<0.0050	<0.0050	0.1	<0.010	<0.010	<0.010	<0.010	<0.010	
MW-1ADup	Downgradient	<0.010	-	-	<0.0050	<0.0050		<0.010	-	-	<0.010	<0.010	
MW-1B	Downgradient	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-1BDup	Downgradient	-	<0.0070	<0.0050	-	-		-	<0.010	<0.010	-	-	
MW-2A	Downgradient	<0.010	0.0235		<0.0050	<0.0050	0.1	<0.010	0.0108		<0.010	<0.010	0.05
MW-2B	Downgradient	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-3A	Downgradient	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	0.0111	0.05
MW-3B	Downgradient	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-6A	Sidegradient-S	<0.010	-	<0.0050	<0.0050	-		<0.010	-	<0.010	<0.010	-	
MW-6ADup	Sidegradient-S	<0.010	-	-	-	-		<0.010	-	-	-	-	
MW-6B	Sidegradient-S	<0.010	-	<0.0050	<0.0050	-		<0.010	-	<0.010	<0.010	-	
MW-8A	Sidegradient-S	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-8B	Sidegradient-S	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-9A	Sidegradient-S	0.0136	-	<0.0050	<0.0050	-	0.1	<0.010	-	<0.010	<0.010	-	
MW-9B	Sidegradient-S	<0.010	-	0.0192	<0.0050	-	0.1	<0.010	-	0.0132	<0.010		0.05
MW-11A	Upgradient-S	<0.010	-	<0.0050	<0.0050	-		<0.010	-	<0.010	<0.010	-	
MW-11ADup	Upgradient-S	<0.010	-	<0.0050	<0.0050	-		<0.010	-	<0.010	<0.010	-	
MW-11B	Upgradient S	<0.010	-	<0.0050	<0.0050	-		<0.010	-	<0.010	<0.010	-	
MW-12A	Upgradient	<0.010	-	<0.0050	<0.0050	-		0.0339	-	<0.010	<0.010	-	0.05
MW12B	Upgradient	<0.010	-	<0.0050	<0.0050	-		<0.010	-	<0.010	<0.010	-	

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction, N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Nickel						Thallium					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells													
MW-1A	Downgradient	<0.0050	<0.0050	0.0098	<0.0050	<0.0050	0.1	<0.020	<0.0030	<0.0080	<0.0030	<0.0050	
MW-1ADup	Downgradient	<0.0050	-	-	<0.0050	<0.0050		<0.020	-	-	<0.0030	<0.0050	
MW-1B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0080	<0.0030	<0.0030	
MW-1BDup	Downgradient	-	<0.0050	<0.0050	-	-		-	<0.0030	<0.0080	-	-	
MW-2A	Downgradient	0.0173	0.0215	[redacted]	0.00854	0.00523	0.1	<0.020	<0.0030	<0.0080	<0.0030	<0.0070	
MW-2B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0080	<0.0030	<0.0030	
MW-3A	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-3B	Downgradient	<0.0050	<0.0050	<0.0050	0.0239	<0.0050	0.1	<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-6A	Sidegradient-S	<0.0050	-	<0.0050	<0.0050	-		<0.020	-	<0.0030	<0.0030	-	
MW-6ADup	Sidegradient-S	<0.0050	-	-	-	-		<0.020	-	-	-		
MW-6B	Sidegradient-S	<0.0050	-	<0.0050	<0.0050	-		<0.020	-	<0.0030	<0.0030		
MW-8A	Sidegradient-S	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-8B	Sidegradient-S	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-9A	Sidegradient-S	<0.0050		<0.0050	<0.0050	-		<0.020		<0.0030	<0.0030	-	
MW-9B	Sidegradient-S	<0.0050		0.0128	<0.0050	-	0.1	<0.020	-	<0.0030	<0.0030		
MW-11A	Upgradient-S	<0.0050	-	<0.0050	<0.0050	-		<0.020	-	<0.0030	<0.0030	-	
MW-11ADup	Upgradient-S	<0.0050	-	<0.0050	<0.0050	-		<0.020	-	<0.0030	<0.0030	-	
MW-11B	Upgradient-S	<0.0050	-	<0.0050	<0.0050	-		<0.020	-	<0.0030	<0.0030		
MW-12A	Upgradient	<0.0050		<0.0050	<0.0050	-		<0.020	-	[redacted]	<0.0030	-	0.002
MW-12B	Upgradient	<0.0050		<0.0050	<0.0050	-		<0.020	-	[redacted]	<0.0030		0.002

Noted:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A " <" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RI.).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Cobalt					Copper				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-1A	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	0.0109	0.0464	<0.010	<0.010
MW-1ADup	Downgradient	<0.0050	-	-	<0.0050	<0.0010	<0.010	-	-	<0.010	<0.010
MW-1B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-1BDup	Downgradient	-	<0.0050	<0.0050	-	-	-	<0.010	<0.010	-	-
MW-2A	Downgradient	0.0154	0.0129	0.0715	<0.0050	0.00354	<0.010	0.0293	0.191	<0.010	<0.010
MW-2B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-3A	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-3B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-6A	Sidegradient-S	<0.0050	-	<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	-
MW-6ADup	Sidegradient-S	<0.0050	-	-	-	-	<0.010	-	-	-	-
MW-6B	Sidegradient-S	<0.0050		<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	-
MW-8A	Sidegradient-S	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	0.0106	<0.010	<0.010	<0.010
MW-8B	Sidegradient-S	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-9A	Sidegradient-S	<0.0050	-	<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	
MW-9B	Sidegradient-S	<0.0050	-	0.0159	0.0102	-	<0.010	-	<0.010	<0.010	-
MW-11A	Upgradient-S	<0.0050		<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	
MW-11ADup	Upgradient-S	<0.0050		<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	
MW-11B	Upgradient-S	<0.0050	-	<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	
MW-12A	Upgradient	<0.0050	-	<0.0050	<0.0050	-	<0.010	-	<0.010	<0.010	-
MW12B	Upgradient	<0.0050	-	<0.0050	<0.0050	-	<0.010		<0.010	<0.010	-

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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Iron					Manganese				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-1A	Downgradient	3.32	4.01	2.2	<0.050	0.0264	0.38	0.103	0.106	<0.050	<0.0050
MW-1ADup	Downgradient	2.71	-	-	0.0780	0.0420	0.357	-	-	<0.050	<0.0050
MW-1B	Downgradient	0.588	0.625	0.743	0.122	0.0322	<0.050	<0.050	<0.050	<0.050	0.0163
MW-1BDup	Downgradient	-	0.581	0.64	-	-	-	<0.050	<0.050	-	-
MW-2A	Downgradient	1.74	17.9	159	0.261	1.08	2.07	3.11	4.68	3.43	2.88
MW-2B	Downgradient	0.463	0.375	0.365	0.100	0.473	<0.050	<0.050	<0.050	<0.050	0.0317
MW-3A	Downgradient	5.89	1.61	2.25	2.32	2.03	0.394	0.277	0.359	0.340	0.329
MW-3B	Downgradient	0.408	0.369	0.715	0.115	<0.020	<0.050	<0.050	0.0512	<0.050	<0.0050
MW-6A	Sidegradient-S	5.3	-	5.69	5.37	-	0.18	-	0.206	0.190	-
MW 6ADup	Sidegradient-S	5.12		-	-		0.175	-	-	-	-
MW-6B	Sidegradient-S	0.893	-	0.993	1.47	-	<0.050	-	0.0528	0.0578	-
MW-8A	Sidegradient-S	2.26	4.68	1.1	0.455	0.348	0.204	0.237	0.299	0.311	0.186
MW-8B	Sidegradient-S	0.596	0.605	0.699	0.285	0.551	0.13	0.126	0.157	0.0792	0.155
MW-9A	Sidegradient-S	8.48	-	1.43	0.971	-	0.217	-	0.195	0.285	-
MW-9B	Sidegradient-S	1.3	-	9.5	3.48	-	0.151	-	0.28	0.207	
MW-11A	Upgradient-S	0.784	-	0.776	0.252	-	0.163	-	0.17	0.313	
MW 11ADup	Upgradient-S	0.612	-	0.757	0.252	-	0.105	-	0.178	0.266	
MW-11B	Upgradient-S	0.652	-	0.967	0.176	-	0.139	-	0.174	<0.050	-
MW-12A	Upgradient	0.72	-	0.606	0.702	-	0.154	-	0.175	0.182	
MW12B	Upgradient	0.555	-	0.532	0.175	-	0.098	-	0.108	0.122	

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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Sodium					Zinc				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-1A	Downgradient	16	18	18.1	17.3	18.5	<0.020	0.0239	<0.020	<0.020	<0.0050
MW-1ADup	Downgradient	16.1	-	-	17.8	-	<0.020	-		<0.020	0.00685
MW-1B	Downgradient	44.9	46.4	47.9	45.3	43.4	<0.020	<0.020	<0.020	<0.020	<0.0050
MW-1BDup	Downgradient	-	44	47.7	-	-	-	<0.020	<0.020		-
MW-2A	Downgradient	41.8	34.2	30.7	29.8	27.4	0.0383	0.0532	0.436	<0.020	<0.0050
MW-2B	Downgradient	43.5	46.9	44.5	44.3	42.7	0.046	<0.020	<0.020	<0.020	0.00657
MW-3A	Downgradient	18.5	20.2	23.3	19.3	19.6	<0.020	<0.020	<0.020	<0.020	<0.0050
MW-3B	Downgradient	29	33.1	37.9	32.7	31.9	<0.020	<0.020	<0.020	<0.020	<0.0050
MW-6A	Sidegradient-S	19.1	-	27.4	28.9	-	<0.020	-	<0.020	<0.020	-
MW-6ADup	Sidegradient-S	18.6	-	-	-	-	<0.020	-	-	-	-
MW-6B	Sidegradient-S	41.5	-	46.9	42.8	-	<0.020	-	0.0261	<0.020	-
MW-8A	Sidegradient-S	6.46	7.88	8.91	7.96	6.85	<0.020	<0.020	0.0223	<0.020	<0.0050
MW-8B	Sidegradient-S	6.73	7.23	9.13	8.81	8.8	<0.020	<0.020	<0.020	<0.020	<0.0050
MW-9A	Sidegradient-S	7.35	-	9.37	8.12	-	<0.020	-	<0.020	<0.020	-
MW-9B	Sidegradient-S	7.3	-	8.81	8.29	-	<0.020	-	0.0306	<0.020	
MW-11A	Upgradient-S	7.48	-	8.41	7.93	-	<0.050	-	<0.020	<0.020	-
MW-11ADup	Upgradient-S	9.9	-	8.37	7.84		<0.050	-	0.023	<0.020	-
MW-11B	Upgradient-S	7.64	-	8.84	8.72	-	<0.050	-	0.0208	<0.020	-
MW-12A	Upgradient	7.11	-	7.26	7.53	-	<0.050	-	<0.020	<0.020	-
MW12B	Upgradient	9.62	-	10.5	11.1	-	<0.050	-	<0.020	<0.020	-

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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Chloride					Sulfate				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-1A	Downgradient	10.3	9.01	11.2	8.78	9.57	135	167	159	17.2	162
MW-1ADup	Downgradient	10.7	-	-	8.45	9.48	131	-	-	16.7	156
MW-1B	Downgradient	10.6	11.2	10.7	7.41	6.36	21.7	13.6	11.9	11.4	11.3
MW-1BDup	Downgradient	-	11	11	-	-	-	11.3	11.6	-	-
MW-2A	Downgradient	8.65	6.16	8.47	8.08	4.72	193	237	300	231	282
MW-2B	Downgradient	26	23.4	23.7	20.5	19.1	9.46	8.34	8.5	7.42	8.45
MW-3A	Downgradient	5.15	3.91	4.94	5.42	6.55	104	98.9	107	89.6	100
MW-3B	Downgradient	13.2	13.2	21	20.3	10.5	7.48	8.12	7.74	8.52	8.10
MW-6A	Sidegradient-S	10.9		12	8.61		107	-	115	107	
MW-6ADup	Sidegradient-S	10.9	-	-	-	-	106	-	-	-	-
MW-6B	Sidegradient-S	79.8	-	74.9	48.6	-	46	-	38.2	22.2	-
MW-8A	Sidegradient-S	3.37	2.83	3.44	2.37	3.01	22	21.7	19.8	20.2	23.1
MW-8B	Sidegradient-S	3.42	3.23	4.36	2.71	4.56	21.3	24.2	26.9	22.2	24.4
MW-9A	Sidegradient-S	3.73	-	5.29	3.22	-	25.7	-	31.4	24.8	-
MW-9B	Sidegradient-S	3.96	-	4.48	3.20	-	22.8	-	24.6	24.2	-
MW-11A	Upgradient-S	6.77		4.18	2.74	-	30.1	-	20.9	19.9	-
MW-11ADup	Upgradient-S	3.32	-	4.52	2.55	-	19.6	-	26.2	19.4	
MW-11B	Upgradient-S	3.26	-	4.41	2.47		19.9	-	27.8	19.1	-
MW-12A	Upgradient	10.1	-	12.6	8.88	-	38.4	-	47.9	34.1	
MW-12B	Upgradient	6.96	-	7.9	7.31	-	31.2	-	36.6	34.2	

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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Ammonia					Nitrate-Nitrite (as N)				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-1A	Downgradient	0.34	<0.20	0.22	0.34	<0.20	<0.327	<0.0530	<0.05	<0.053	<0.053
MW-1ADup	Downgradient	1.1			0.22	<0.20	<0.327	-	-	<0.053	<0.053
MW-1B	Downgradient	<0.20	0.45	0.34	0.22	<0.20	<0.327	<0.0530	<0.05	0.251	0.220
MW-1BDup	Downgradient	-	0.56	0.34	-	-	-	<0.0530	<0.05	-	
MW-2A	Downgradient	<0.20	<0.20	0.34	0.34	<0.20	<0.327	<0.0530	<0.05	<0.053	<0.053
MW-2B	Downgradient	0.9	0.9	0.56	0.22	0.28	<0.327	<0.0530	<0.05	0.108	0.0823
MW-3A	Downgradient	0.22	0.34	<0.20	0.45	<0.20	<0.05	<0.0530	<0.05	<0.053	<0.053
MW-3B	Downgradient	0.56	0.9	<0.20	0.45	<0.20	<0.05	<0.0530	<0.05	0.242	0.452
MW-6A	Sidegradient-S	<0.20	-	<0.20	0.45	-	<0.05	-	<0.05	<0.053	
MW-6ADup	Sidegradient-S	<0.20	-	-	-	-	<0.05	-	-	-	
MW-6B	Sidegradient-S	0.45		0.67	0.67	-	<0.05	-	<0.05	<0.053	
MW-8A	Sidegradient-S	<0.20	<0.20	<0.20	<0.20	<0.20	0.0598	<0.0530	<0.05	<0.053	<0.053
MW-8B	Sidegradient-S	<0.20	<0.20	<0.20	0.22	<0.20	<0.0530	<0.0530	<0.05	<0.053	<0.053
MW-9A	Sidegradient-S	<0.20	-	<0.20	<0.20	-	<0.0530	-	<0.05	<0.053	-
MW-9B	Sidegradient-S	0.22	-	<0.20	<0.20	-	<0.0530	-	<0.05	<0.053	
MW-11A	Upgradient-S	<0.20	-	0.22	<0.20	-	<0.0530	-	<0.05	<0.053	-
MW-11ADup	Upgradient-S	0.22	-	0.22	<0.20	-	<0.0530	-	<0.05	<0.053	-
MW-11B	Upgradient-S	<0.20		0.34	0.22	-	<0.0530	-	<0.05	0.0585	-
MW-12A	Upgradient	<0.20	-	0.22	<0.20	-	<0.0530		<0.05	<0.053	-
MW12B	Upgradient	0.22	-	<0.20	0.28	-	<0.0530		<0.05	<0.053	-

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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	TDS					COD				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-1A	Downgradient	600	610	660	660	640	<10	<10	<10	<10	<10
MW-1ADup	Downgradient	580	-	-	660	650	<10	-	-	<10	11
MW-1B	Downgradient	290	280	330	340	590	<10	<10	<10	<10	<10
MW-1BDup	Downgradient	-	310	320	-	-	-	<10	<10	-	
MW-2A	Downgradient	930	1100	1100	1100	970	<10	380	34	<10	11
MW-2B	Downgradient	320	300	330	310	290	10	<10	<10	<10	<10
MW-3A	Downgradient	620	570	600	600	610	19	18	<10	<10	12
MW-3B	Downgradient	300	300	340	290	310	25	16	<10	<10	<10
MW-6A	Sidegradient-S	620	-	560	560	-	20	-	<10	<10	-
MW-6ADup	Sidegradient-S	620	-	-	-	-	18	-	-	-	-
MW-6B	Sidegradient-S	520	-	460	410	-	22	-	<10	<10	-
MW-8A	Sidegradient-S	320	270	300	280	340	14	10	<10	<10	12
MW-8B	Sidegradient-S	330	280	290	290	280	17	15	<10	<10	<10
MW-9A	Sidegradient-S	330	-	290	280	-	<10	-	<10	10	-
MW-9B	Sidegradient-S	340	-	300	300	-	19	-	<10	<10	-
MW-11A	Upgradient-S	340	-	270	300	-	13	-	<10	<10	-
MW-11ADup	Upgradient-S	330	-	280	280	-	<10	-	<10	<10	-
MW-11B	Upgradient-S	320	-	270	290	-	<10	-	<10	<10	-
MW-12A	Upgradient	690	-	310	290	-	13	-	<10	14	-
MW12B	Upgradient	330	-	300	330	-	<10	-	<10	13	-

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QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative Location	Bis(2-Ethylhexyl)phthalate			Diethyl Phthalate
		4th Round	5th Round	Action Level	5th Round
Monitoring Wells					
MW-1A	Downgradient	<0.010	<0.010		<0.010
MW-1ADup	Downgradient	<0.010	<0.010		<0.010
MW-1B	Downgradient	<0.010	<0.010		<0.010
MW-1BDup	Downgradient	-	-		-
MW-2A	Downgradient	<0.010	<0.010		<0.010
MW-2B	Downgradient	<0.010	<0.010		<0.010
MW-3A	Downgradient	<0.010	<0.010		<0.010
MW-3B	Downgradient	<0.010	<0.010		<0.010
MW-6A	Sidegradient-S	<0.010			
MW-6ADup	Sidegradient-S	-	-		
MW-6B	Sidegradient-S		-	0.006	-
MW-8A	Sidegradient-S	<0.010	<0.010		<0.010
MW-8B	Sidegradient-S	<0.010	<0.010		<0.010
MW-9A	Sidegradient-S	<0.010	-		-
MW-9B	Sidegradient-S	<0.010	-		
MW-11A	Upgradient-S	<0.010	-		-
MW-11ADup	Upgradient-S	<0.010	-		-
MW-11B	Upgradient-S	<0.010	-		-
MW-12A	Upgradient	<0.010	-		-
MW12B	Upgradient	<0.010			

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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Date Sampled					Arsenic					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells												
MW-13A	Upgradient-N	8/31/01	11/15/01	2/22/02	5/22/02	8/21/02	<0.020	<0.010	<0.0050	<0.0050	0.0148	0.050
MW-13ADup	Upgradient-N	-	11/15/01	-	-	-	-	<0.010	-	-	-	
MW-13B	Upgradient-N	8/31/01	11/15/01	2/25/02	5/22/02	8/21/02	<0.020	<0.010	0.00768	<0.0050	<0.0050	0.050
MW-15A	Sidegradient-N	8/30/01	11/15/01	2/22/02	5/22/02	8/20/02	<0.020	<0.010	<0.0050	<0.0050	<0.0050	
MW-15ADup	Sidegradient-N	-	-	-	-	8/20/02	-	-	-	-	<0.0050	
MW-15B	Sidegradient-N	8/31/01	11/15/01	2/22/02	5/22/02	8/20/02	<0.020	<0.010	<0.0050	<0.0050	<0.0050	
MW-16	Sidegradient-N	8/30/01	11/15/01	2/22/02	5/22/02	8/20/02	<0.020	<0.010	<0.0050	<0.0050	<0.0050	
MW-16Dup	Sidegradient N	-	-	-	5/22/02	-	-	-	-	<0.0050	-	
MW-17A	Sidegradient-N	8/30/01	11/14/01	2/21/02	5/21/02	8/20/02	<0.020	<0.010	<0.010	<0.0050	<0.0050	
MW-17B	Sidegradient-N	8/30/01	11/14/01	2/21/02	5/21/02	8/20/02	<0.020	<0.010	<0.010	<0.0050	<0.0050	
MW-18A	Downgradient	9/11/01	11/14/01	2/28/02	5/29/02	8/23/02	0.0398	0.0494		0.0156	0.0359	0.050
MW-18B	Downgradient	9/11/01	11/14/01	2/28/02	5/29/02	8/23/02	<0.020	<0.010	<0.0050	<0.0050	<0.0050	
MW-18BDup	Downgradient	-	-	2/28/02	-		-		<0.0050		-	
MW 22A	Upgradient OS	8/27/01	11/19/01	2/21/02	5/21/02	8/22/02	<0.020		0.0088	0.00609	0.0135	0.050
MW 22B	Upgradient-OS	8/29/01	11/19/01	2/21/02	5/21/02	8/22/02	<0.020	<0.010	<0.0050	<0.0050	0.0130	0.050
Residential Wells												
D01		8/29/01		-	-	8/22/02	-	-		-	-	
D03		9/11/01	-			9/5/02		-	-	-		
D04		9/11/01		-	-	8/22/02	-				-	
D05		9/10, 25/01	-	-	-	9/5/02	-	-	-	-	-	
D09		9/11/01	-	-	-	-	-	-	-	-	-	
D15		9/11/01	-	-	-	8/22/02	-	-	-	-	-	

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed m units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" Indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Barium						Beryllium					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells													
MW-13A	Upgradient-N	0.0942	0.0904	0.0883	0.100	0.0903	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-13ADup	Upgradient-N		0.0889		-	-	1	-	<0.0040	-	-		
MW-13B	Upgradient-N	0.0716	0.072	0.0762	0.0692	0.0551	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-15A	Sidegradient-N	0.046	0.0399	0.0327	0.0427	0.0389	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-15ADup	Sidegradient-N	-	-	-	-	0.0350	1	-	-	-	-	<0.0010	
MW-15B	Sidegradient-N	0.0294	0.0257	0.0233	0.0298	0.0264	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-16	Sidegradient-N	0.163	0.152	0.136	0.178	0.152	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-16Dup	Sidegradient-N				0.177	-	1	-	-	-	<0.0040	-	
MW-17A	Sidegradient-N	0.16	0.153	0.166	0.207	0.189	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-17B	Sidegradient-N	0.0757	0.085	0.0739	0.0783	0.0618	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-18A	Downgradient	0.212	0.211	0.257	0.245	0.193	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-18B	Downgradient	0.0334	0.0351	0.0383	0.0385	0.0307	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-18BDup	Downgradient	-	-	0.0397	-	-	1	-	-	<0.0040	-	-	
MW-22A	Upgradient-OS	0.0867	0.149	0.0784	0.0963	0.0809	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
MW-22B	Upgradient-OS	0.0456	0.0466	0.0397	0.0523	0.0471	1	<0.0050	<0.0040	<0.0040	<0.0040	<0.0010	
Residential Wells													
D01			-	-	-	-		-	-		-	-	
D03				-	-	-		-	-	-	-	-	
D04		-	-	-	-	-		-	-		-	-	
D05		-	-	-	-	-		-		-	-	-	
D09		-	-	-	-	-		-	-				
D15		-		-	-			-	-	-	-	-	

Notes:
- Table includes only those parameters that were detected in at least one sample.
- AII values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MI)L). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Chromium						Lead					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells													
MW-13A	Upgradient-N	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-13ADup	Upgradient-N	-	<0.0070	-	-	-		-	<0.010	-	-	-	
MW-13B	Upgradient-N	<0.010	<0.0070	0.00837	<0.0050	<0.0050	0.1	<0.010	<0.010	<0.010	<0.010	<0.010	
MW 15A	Sidegradient-N	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-15ADup	Sidegradient N					<0.0050		-	-	-	-	<0.010	
MW 15B	Sidegradient N	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW 16	Sidegradient-N	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-16Dup	Sidegradient-N	-	-	-	<0.0050	-		-	-	-	<0.010	-	
MW-17A	Sidegradient-N	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	0.0136	0.05
MW 17B	Sidegradient N	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW 18A	Downgradient	<0.010	<0.0070	0.00515	<0.0050	<0.0050	0.1	<0.010	<0.010	<0.010	<0.010	<0.010	
MW 18B	Downgradient	<0.050	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW 18BDup	Downgradient			<0.0050	-	-		-	-	<0.010	-	-	
MW-22A	Upgradient-OS	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
MW-22B	Upgradient-OS	<0.010	<0.0070	<0.0050	<0.0050	<0.0050		<0.010	<0.010	<0.010	<0.010	<0.010	
Residential Wells													
D01				-	-	-		-	-		-	-	
D03		-	-		-			-	-	-	-	-	
D04				-	-	-			-	-	-	-	
D05		-	-	-	-	-		-					
D09		-	-	-	-	-		-	-		-	-	
D15		-		-	-	-		-	-	-	-	-	

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCI.)
- A" -" Indicates that either monitoring well was not samp led or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Nickel						Thallium					
		1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level	1st Round	2nd Round	3rd Round	4th Round	5th Round	Action Level
Monitoring Wells													
MW-13A	Upgradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-13ADup	Upgradient-N		<0.0050	-	-	-			<0.0030	-	-	-	
MW-13B	Upgradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-15A	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
MW-15ADup	Sidegradient-N	-	-	-		<0.0050		-	-	-	-	<0.0030	
MW-15B	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0040	
MW-16	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0040	
MW-16Dup	Sidegradient-N	-		-	<0.0050	-		-	-	-	<0.0030	-	
MW-17A	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	[redacted]	<0.0030	<0.0040	0.002
MW-17B	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0040	<0.0030	<0.0040	
MW-18A	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0080	<0.0030	<0.0050	
MW-18B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0080	<0.0030	<0.0030	
MW-18BDup	Downgradient	-	-	<0.0050		-		-	-	<0.0080	-	-	
MW-22A	Upgradient-OS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0040	
MW-22B	Upgradient-OS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		<0.020	<0.0030	<0.0030	<0.0030	<0.0030	
Residential Wells													
D01			-	-	-	-			-	-	-	-	
D03			-	-	-	-		-	-	-	-		
D04		-	-	-	-			-	-	-	-		
D05		-	-	-	-			-	-	-	-		
D09		-	-	-		-		-	-	-	-	-	
D15		-	-		-	-		-	-	-	-	-	

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Cobalt					Copper				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-13A	Upgradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-13ADup	Upgradient N	-	<0.0050	-	-	-	-	<0.010	-	-	-
MW-13B	Upgradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	0.0114	<0.010	<0.010	<0.010
MW-15A	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-15ADup	Sidegradient-N	-	-	-	-	<0.0010	-	-	-	-	<0.010
MW-15B	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-16	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-16Dup	Sidegradient-N	-	-	-	<0.0050	-	-	-	-	<0.010	-
MW-17A	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	0.0469	0.0116	<0.010	<0.010
MW-17B	Sidegradient-N	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-18A	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	0.0102	0.0156	<0.010	<0.010
MW-18B	Downgradient	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
MW-18BDup	Downgradient	-	-	<0.0050	-	-	-	-	<0.010	-	-
MW-22A	Upgradient-OS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	0.0152	<0.010	<0.010	<0.010
MW-22B	Upgradient OS	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	<0.010	<0.010	<0.010	<0.010	<0.010
Residential Wells											
D01		-		-	-	-	-	-	-	-	
D03		-	-	-	-	-	-	-		-	-
D04		-	-	-	-	-	-	-	-		-
D05		-		-		-	-	-	-	-	
D09		-	-	-	-	-	-	-	-	-	
D15		-	-	-	-	-	-	-	-	-	-

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
Shaded values exceed the Action Level (MCL).
- A " -" indicates that other monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL).
The associated value is the Reporting Limit (RL).
[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative Location	Iron					Manganese				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-13A	Upgradient-N	1.7	0.899	0.643	1.17	0.52	0.168	0.154	0.159	0.186	0.162
MW-13ADup	Upgradient-N	-	0.797	-	-	-	-	0.152	-		
MW-13B	Upgradient-N	2	2.56	1.14	0.918	0.377	0.162	0.164	0.176	0.173	0.193
MW-15A	Sidegradient-N	1.67	0.605	1.03	0.582	0.551	0.147	0.138	0.137	0.164	0.152
MW-15ADup	Sidegradient-N	-	-	-		0.519	-	-	-	-	0.142
MW-15B	Sidegradient-N	0.577	0.484	0.46	0.915	0.634	0.129	0.116	0.119	0.163	0.127
MW-16	Sidegradient-N	2.66	2.5	2.27	3.50	1.75	0.246	0.227	0.212	0.258	0.191
MW-16Dup	Sidegradient-N	-	-	-	3.22	-	-	-	-	0.256	-
MW-17A	Sidegradient-N	1.91	1.85	1.91	2.30	2.26	0.109	0.104	0.122	0.154	0.144
MW-17B	Sidegradient-N	0.811	0.625	0.641	0.484	1.14	<0.050	<0.050	<0.050	0.0716	0.0725
MW-18A	Downgradient	1.59	1.58	2.29	1.27	1.23	0.085	0.103	0.178	0.168	0.127
MW-18B	Downgradient	0.518	0.372	0.651	0.455	0.331	<0.050	<0.050	<0.050	<0.050	0.0364
MW-18BDup	Downgradient			0.874	-	-	-	-	<0.050		-
MW-22A	Upgradient OS	1.65	9.24	0.509	0.638	0.635	0.169	0.312	0.18	0.200	0.177
MW-22B	Upgradient-OS	0.414	0.326	0.357	0.195	0.500	0.104	0.0998	0.11	0.0996	0.117
Residential Wells											
D01		0.313	-		-	0.301	<0.050	-	-		0.0356
D03		0.467			-	0.369	<0.050	-	-		0.0323
D04		2.49	-	-	-	0.728	0.0634	-	-	-	0.0708
D05		<0.050	-	-	-	0.0262	<0.050	-	-		<0.0050
D09		0.672	-	-	-	-	0.0597	-	-	-	-
D15		0.455	-	-	-	0.489	<0.050	-	-	-	0.0452

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (AL).

[1]Location of well relative to groundwater flow direction. N =north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Sodium					Zinc				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-13A	Upgradient-N	7.37	8.21	7.47	7.63	7.19	<0.050	<0.020	<0.020	<0.020	<0.0050
MW-13ADup	Upgradient-N	-	8.09	-	-	-	-	<0.020	-	-	-
MW-13B	Upgradient-N	8.89	9.62	8.49	8.01	8.68	<0.050	<0.020	<0.020	<0.020	0.00666
MW-15A	Sidegradient-N	11.8	13.7	10.6	11.1	10.5	<0.050	<0.020	<0.020	<0.020	<0.0050
MW-15ADup	Sidegradient-N	-	-	-	-	9.69	-	-	-	-	<0.0050
MW-15B	Sidegradient-N	10.8	13	10.9	11.3	11.1	0.0626	<0.020	<0.020	<0.020	<0.0050
MW-16	Sidegradient-N	41.3	43.1	36.8	45.4	47.3	<0.050	<0.020	<0.020	<0.020	<0.0050
MW-16Dup	Sidegradient-N	-	-	-	44.3	-	-	-	-	<0.020	-
MW-17A	Sidegradient-N	28.3	32.4	31	38.2	38.1	<0.050	<0.020	<0.020	<0.020	<0.0050
MW-17B	Sidegradient-N	28.4	31.4	30.1	32.6	31.8	<0.050	<0.020	<0.020	<0.020	<0.0050
MW-18A	Downgradient	53	60.4	58.4	58.9	54.9	<0.020	<0.020	<0.020	<0.020	<0.0050
MW-18B	Downgradient	98.8	101	94.6	96.7	87.7	<0.020	<0.020	<0.020	<0.020	<0.0050
MW-18BDup	Downgradient			95.7	-	-	-	-	<0.020	-	-
MW-22A	Upgradient-OS	8.82	8.98	7.9	8.84	7.38	<0.050	0.0365	<0.020	<0.020	0.00515
MW-22B	Upgradient-OS	11.6	11.3	11.8	11.6	9.91	<0.050	<0.020	<0.020	<0.020	<0.0050
Residential Wells											
D01		96.8	-	-	-	98.6	-	-	-	-	-
D03		51.4	-	-	-	60.2	-	-	-	-	-
D04		7.87	-	-	-	7.99	-	-	-	-	-
D05		125	-	-	-	129	-	-	-	-	-
D09		11.7	-	-	-	-	-	-	-	-	-
D15		19.8	-	-	-	21.2	-	-	-	-	-

Notes:
- Table includes only those parameters that were detected in at least one sample.
- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
- A " -" indicates that either monitoring well was not sampled or parameter was not tested for.
- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (ILL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Chloride					Sulfate				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW 13A	Upgradient-N	25.1	8.75	24.5	22.5	20.7	56.4	25.7	55.3	52.2	69.9
MW-13ADup	Upgradient-N	-	20.3	-	-	-	-	52.5	-	-	-
MW 13B	Upgradient-N	24.2	20.2	21.6	22.0	22.2	54.4	49.4	54.7	51.1	67.4
MW 15A	Sidegradient-N	32.6	25	24.7	20.1	19.6	50.1	39.8	49.2	52.4	40.2
MW-15ADup	Sidegradient-N			-	-	19.1					39.4
MW-15B	Sidegradient N	44.7	21.7	33.4	29.2	23.8	21.2	22.8	31.4	22.7	30.9
MW-16	Sidegradient-N	83.2	72	113	95.9	94.6	134	74.4	44.8	50.3	32.5
MW-16Dup	Sidegradient-N	-	-	-	87.2	-	-	-	-	45.1	-
MW-17A	Sidegradient-N	46.2	50.2	81.5	79.6	78.9	57.1	60	72.2	66.6	69.3
MW-17B	Sidegradient-N	69	61.9	89.2	65.7	49.9	38.1	34	40	36.9	30.4
MW-18A	Downgradient	34.9	32.8	49.5	45.3	26.0	69.4	76.7	114	71.3	102
MW-18B	Downgradient	46.8	34.5	44.8	35.0	34.3	0.257	0.413	<1.0	<0.10	0.135
MW-18BDup	Downgradient	-	-	42.5	-	-		-	1.3	-	-
MW-22A	Upgradient-OS	28.4	16.4	33.4	29.2	27.9	77.6	50.3	65.9	54.0	68.1
MW-22B	Upgradient-OS	8.79	9.12	10.8	10.2	9.32	31.9	32.2	34.1	32.4	42.0
Residential Wells											
D01		75.6	-	-	-	19.7	0.252				10.9
D03		8.49	-	-	-	12.8	8.35				7.22
D04		4.79	-	-	-	4.43	19.3				35.4
D05		11.5	-	-		10.5	13.9				28.8
D09		3.59	-	-	-	-	12.8				-
D15		4.04	-	-	-	3.14	19.5				38.5

Notes:
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- A "<" indicates that the parameter was not detected above the Method Detection Limit (MDL). The associated value is the Reporting Limit (RL).

[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Ammonia					Nitrate-Nitrite (as N)				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-13A	Upgradient-N	<0.20	<0.20	0.34	<0.20	<0.20	<0.328	<0.0530	<0.05	0.380	<0.053
MW-13ADup	Upgradient-N	-	<0.20	-	-	-	-	<0.0530	-	-	-
MW-13B	Upgradient-N	<0.20	0.22	<0.20	0.39	<0.20	<0.328	<0.0530	<0.05	<0.053	<0.053
MW-15A	Sidegradient-N	<0.20	0.22	0.34	<0.20	<0.20	<0.328	<0.0530	<0.05	<0.053	<0.053
MW-15ADup	Sidegradient-N	-	-	-	-	<0.20	-	-	-	-	<0.053
MW-15B	Sidegradient-N	0.22	0.34	0.8	<0.20	0.28	<0.328	<0.0530	<0.05	<0.053	<0.053
MW-16	Sidegradient-N	0.45	0.56	0.45	<0.20	<0.20	<0.328	<0.0530	<0.05	<0.053	<0.053
MW-16Dup	Sidegradient-N	-	-	-	0.50	-	-	-	-	<0.05	-
MW-17A	Sidegradient-N	<0.20	0.67	<0.20	1.1	<0.20	<0.328	<0.0530	<0.05	<0.053	<0.053
MW-17B	Sidegradient-N	0.28	0.78	<0.20	0.62	<0.20	<0.328	0.0628	<0.05	<0.053	<0.53
MW-18A	Downgradient	0.56	0.56	0.78	0.22	<0.20	<0.327	3	0.315	<0.053	<0.053
MW-18B	Downgradient	1	<0.20	0.56	0.22	0.22	<0.327	<0.0530	<0.05	<0.053	<0.053
MW-18BDup	Downgradient	-	-	0.22	-	-	-	-	<0.05	-	-
MW-22A	Upgradient-OS	<0.20	0.34	<0.20	0.50	<0.20	<0.328	<0.0530	<0.05	<0.053	<0.053
MW-22B	Upgradient-OS	<0.20	<0.20	0.22	0.50	<0.20	<0.328	<0.0530	<0.05	<0.053	<0.053
Residential Wells											
D01		<0.20	-	-	-	0.22	<0.328	-	-	-	<0.053
D03		0.22			-	0.3900	<0.327	-	-	-	<0.053
D04		0.22	-	-	-	<0.20	<0.327	-		-	<0.053
D05		0.22	-	-	-	<0.20	<0.053	-	-		<0.053
D09		0.22	-	-	-	-	<0.327	-	-	-	-
D15		0.34	-	-	-	<0.20	<0.327			-	<0.053

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[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
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TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	TDS					COD				
		1st Round	2nd Round	3rd Round	4th Round	5th Round	1st Round	2nd Round	3rd Round	4th Round	5th Round
Monitoring Wells											
MW-13A	Upgradient-N	400	330	340	360	340	11	13	<10	<10	<10
MW-13ADup	Upgradient-N	-	370	-	-	-	-	10	-	-	-
MW-13B	Upgradient-N	380	350	340	360	350	18	11	<10	<10	22
MW-15A	Sidegradient-N	460	360	300	340	290	14	<10	<10	<10	<10
MW-15ADup	Sidegradient-N	-			-	340	-	-	-	-	<10
MW-15B	Sidegradient-N	400	300	320	100*	330	13	12	<10	<10	<10
MW-16	Sidegradient-N	640	550	530	530	530	16	11	<10	<10	<10
MW-16Dup	Sidegradient N	-	-	-	540	-	-	-	-	<10	-
MW-17A	Sidegradient N	500	430	530	520	520	22	10	<10	<10	<10
MW-17B	Sidegradient-N	530	420	440	440	400	24	<10	<10	<10	<10
MW 18A	Downgradient	500	540	560	550	330	<10	10	<10	<10	<10
MW-18B	Downgradient	390	350	350	330	340	<10	10	<10	<10	11
MW-18BDup	Downgradient	-		360	-	-	-	-	<10	-	-
MW-22A	Upgradient-OS	380	340	390	370	360	<10	11	<10	<10	<10
MW-22B	Upgradient OS	300	260	300	300	310	16	10	<10	<10	<10
Residential Wells											
D01		420	-	-	-	410	11	-			<10
D03		310		-	-	300	<10	-	-	-	<10
D04		270	-	-	-	250	<10	-	-		<10
D05		300		-	-	330	<10	-	-	-	<10
D09		270	-	-	-	-	<10	-	-	-	
D15		300	-	-	-	290	15	-	-	-	<10

Notes:
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[1]Location of well relative to groundwater flow direction. N=north; S=south; OS=off-site.
[2]First value represents initial exceedance/Second value represents confirmation sampling result.

TABLE 3-2

SUMMARY OF WATER QUALITY DATA

QUARTERLY REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM

NEW LYME LANDFILL SUPERFUND SITE, NEW LYME, OHIO

REPORTING PERIOD: AUGUST - OCTOBER 2002

Well ID	Relative[1] Location	Bis(2-Ethylhexyl)phthalate			Diethyl Phthalate
		4th Round	5th Round	Action Level	5th Round
Monitoring Wells					
MW-13A	Upgradient-N	<0.010	<0.010		<0.010
MW-13ADup	Upgradient-N		-		-
MW-13B	Upgradient-N	<0.010	<0.010		<0.010
MW-15A	Sidegradient-N	<0.010	<0.010		0.280
MW-15ADup	Sidegradient-N	-	<0.010		<0.010
MW-15B	Sidegradient-N	<0.010	<0.010		<0.010
MW-16	Sidegradient-N	<0.010	<0.010		<0.010
MW-16Dup	Sidegradient-N	<0.010	-		-
MW-17A	Sidegradient-N	<0.010	<0.010		<0.010
MW-17B	Sidegradient-N	<0.010	<0.010		<0.010
MW-18A	Downgradient	<0.010	<0.010		<0.010
MW-18B	Downgradient	<0.010	<0.010		<0.010
MW-18BDup	Downgradient	-			-
MW-22A	Upgradient-OS	<0.010	<0.010		<0.010
MW-22B	Upgradient-OS	<0.010	<0.010		<0.010
Residential Wells					
D01			-	-	-
D03		-	-		-
D04			-	-	-
D05		-	-	-	-
D09		-	-	-	-
D15		-	-	-	-

Notes:
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- All values are expressed in units of parts per million (ppm;mg/L).
- Shaded values exceed the Action Level (MCL).
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Attachment A

Site Inspection Sheets / Questionnaires

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION	
Site name: New Lyme	**Date of inspection:** 10/24/02
Location and Region: Ashtabula Co., Ohio	**EPA ID:** OHD 980 794 614
Agency, office, or company leading the five-year review: U.S. EPA / lead OEPA	**Weather/temperature:** Morning, 36°F Partly cloudy, very light wind

Remedy Includes: (Check all that apply)

- G Landfill cover/containment
- G Access controls
- G Institutional controls
- G Groundwater pump and treatment
- G Surface water collection and treatment
- (G) Other Piezometer monitoring - no plume
- (G) Monitored natural attenuation
- G Groundwater containment
- G Vertical barrier walls

Attachments: (G) Inspection team roster attached G Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** ______________ ______________ ______________
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. ______________
   Problems, suggestions; G Report attached ______________

2. **O&M staff** ______________ ______________ ______________
   Name Title Date
   Interviewed G at site G at office G by phone Phone no. ______________
   Problems, suggestions; G Report attached ______________

Dennis Brock — BC - Site Manager
Mike Watkins - BC - Project Manager
Andrew Kocher - OEPA

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency ODNR
Contact Ken Davis — Area Manager-Parking — 1/7/12 — (440)255-4226
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached ______

Agency ______
Contact ______ ______ ______ ______
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached ______

Agency ______
Contact ______ ______ ______ ______
Name — Title — Date — Phone no.
Problems; suggestions; G Report attached ______

Agency ______
Contact ______ ______ ______ ______
Name — Title — Date — Phone no
Problems; suggestions; G Report attached ______

4. **Other interviews** (optional) G Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. **O&M Documents**
   - G O&M manual Steven — G Readily available — G Up to date — G N/A
   - G As-built drawings Steven — G Readily available — G Up to date — G N/A
   - G Maintenance logs Steven — G Readily available — G Up to date — G N/A

   Remarks BC will request contract documents, OSHA training, Site H&S Plan, Contingency Plan, Work Plan

2. **Site-Specific Health and Safety Plan** — G Readily available (Steven) — G Up to date — G N/A
   - G Contingency plan/emergency response plan — G Readily available — G Up to date — G N/A

   Remarks ~~Steven~~ BC has onsite

3. **O&M and OSHA Training Records** — G Readily available (Steven) — G Up to date — G N/A

   Remarks See 1

4. **Permits and Service Agreements**
   - G Air discharge permit — G Readily available — G Up to date — (G) N/A
   - G Effluent discharge — G Readily available — G Up to date — (G) N/A
   - G Waste disposal, POTW — G Readily available — G Up to date — (G) N/A
   - G Other permits _____ — G Readily available — G Up to date — (G) N/A

   Remarks

5. **Gas Generation Records** — G Readily available — G Up to date — (G) N/A

   Remarks

6. **Settlement Monument Records** — G Readily available — G Up to date — (G) N/A

   Remarks

7. **Groundwater Monitoring Records** — G Readily available — G Up to date — (G) N/A

   Remarks Not necessary

8. **Leachate Extraction Records** — G Readily available — G Up to date — (G) N/A

   Remarks

9. **Discharge Compliance Records**
   - G Air — G Readily available — G Up to date — (G) N/A
   - G Water (effluent) — G Readily available — G Up to date — (G) N/A

   Remarks

10. **Daily Access/Security Logs** — G Readily available — G Up to date — (G) N/A

    Remarks BC will keep record of visit and refer to Site Inspection Sheet (weekly)

IV. O&M COSTS

1. O&M Organization

G State in-house
G PRP in-house
G Federal Facility in-house
G Other
G Contractor for State
G Contractor for PRP (circled)
G Contractor for Federal Facility

2. O&M Cost Records

G Readily available G Up to date
G Funding mechanism/agreement in place
Original O&M cost estimate ____ G Breakdown attached

Total annual cost by year for review period if available

From (Date)	To (Date)	Total cost	
2001	2002	~$200,000	G Breakdown attached
2002	2003	~$150,000	G Breakdown attached
			G Breakdown attached
			G Breakdown attached
			G Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period

Describe costs and reasons: N/A

V. ACCESS AND INSTITUTIONAL CONTROLS G Applicable G N/A

A. Fencing

1. Fencing damaged G Location shown on site map G Gates secured G N/A
Remarks [illegible], fence was repaired once a [illegible] fell on it

B. Other Access Restrictions

1. Signs and other security measures G Location shown on site map G N/A
Remarks Adequate quantity of "No Trespassing" Signs were put up after site visit

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented   G Yes   G No   G N/A
Site conditions imply ICs not being fully enforced   G Yes   G No   G N/A

Type of monitoring (e.g., self-reporting, drive by) ______
Frequency weekly
Responsible party/agency BC
Contact Denny Brock (Name)   Geologist (Title)   10/24 (Date)   (404) 826-4960 (Phone no.)

Reporting is up-to-date   G Yes   G No   G N/A
* Reports are verified by the lead agency   G Yes   G No   G N/A
Note: Report will be included in monthly report
Specific requirements in deed or decision documents have been met   G Yes   G No   G N/A
Violations have been reported   G Yes   G No   G N/A
Other problems or suggestions: G Report attached

2. **Adequacy**   G ICs are adequate   G ICs are inadequate   G N/A
Remarks

D. General

1. **Vandalism/trespassing**   G Location shown on site map   G No vandalism evident
Remarks

2. **Land use changes on site** G N/A
Remarks

3. **Land use changes off site** G N/A
Remarks

VI. GENERAL SITE CONDITIONS

A. Roads   G Applicable   G N/A

1. **Roads damaged**   G Location shown on site map   G Roads adequate   G N/A
Remarks

B. Other Site Conditions

Remarks____

VII. LANDFILL COVERS G Applicable G N/A

A. Landfill Surface

1. **Settlement** (Low spots) (G) Location shown on site map G Settlement not evident
   Areal extent__________ Depth__________
   Remarks *A few low spots on landfill, a few of them contained standing water, BC will ~~[illegible]~~ fill the largest one, the others should be [illegible]*

2. **Cracks** G Location shown on site map (G) Cracking not evident
   Lengths__________ Widths__________ Depths__________
   Remarks____

3. **Erosion** G Location shown on site map (G) Erosion not evident
   Areal extent__________ Depth__________
   Remarks____

4. **Holes** G Location shown on site map G Holes not evident
   Areal extent *1-2 diameter* Depth *1-2 feet*
   Remarks *A few small holes, may be abandoned groundhog holes*

5. **Vegetative Cover** (G) Grass G Cover properly established G No signs of stress
   G Trees/Shrubs (indicate size and locations on a diagram)
   Remarks *A few spots of patchy weeds ~~[illegible]~~ instead of grass*

6. **Alternative Cover (armored rock, concrete, etc.)** (G) N/A
   Remarks____

7. **Bulges** G Location shown on site map (G) Bulges not evident
   Areal extent__________ Height__________
   Remarks____

8.	**Wet Areas/Water Damage** G Wet areas/water damage not evident G Wet areas — G Location shown on site map — Areal extent____ G Ponding — G Location shown on site map — Areal extent____ G Seeps — G Location shown on site map — Areal extent____ G Soft subgrade — G Location shown on site map — Areal extent____ Remarks See IV A 1.
9.	**Slope Instability** G Slides G Location shown on site map G No evidence of slope instability Areal extent____ Remarks____
B. Benches	G Applicable G N/A (Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)
1.	**Flows Bypass Bench** G Location shown on site map G N/A or okay Remarks____
2.	**Bench Breached** G Location shown on site map G N/A or okay Remarks____
3.	**Bench Overtopped** G Location shown on site map____ G N/A or okay Remarks____
C. Letdown Channels	G Applicable G N/A (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)
1.	**Settlement** G Location shown on site map G No evidence of settlement Areal extent____ Depth 10/24/02 Remarks See VI F Section A I
2.	**Material Degradation** G Location shown on site map G No evidence of degradation Material type____ Areal extent____ Remarks____
3.	**Erosion** G Location shown on site map G No evidence of erosion Areal extent____ Depth____ Remarks Small patches of bare ground visible, potential erosion occurring there during rainfall events

4. **Undercutting** G Location shown on site map (G) No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type _____ (G) No obstructions
G Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
(G) No evidence of excessive growth
G Vegetation in channels does not obstruct flow
G Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations G Applicable G N/A

1. **Gas Vents** G Active (G) Passive
(G) Properly secured/locked G Functioning G Routinely sampled (G) Good condition
G Evidence of leakage at penetration G Needs Maintenance
G N/A
Remarks Gas vents and piezometers are not locked but within locked area of landfill

2. **Gas Monitoring Probes**
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance (G) N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
G Properly secured/locked G Functioning (G) Routinely sampled (G) Good condition
G Evidence of leakage at penetration G Needs Maintenance G N/A
Remarks_____

4. **Leachate Extraction Wells**
G Properly secured/locked G Functioning G Routinely sampled G Good condition
G Evidence of leakage at penetration G Needs Maintenance (G) N/A
Remarks Extraction/Pumping wells have been properly abandoned

5. **Settlement Monuments** G Located G Routinely surveyed (G) N/A
Remarks_____

E. Gas Collection and Treatment G Applicable (G) N/A

1. **Gas Treatment Facilities**
   G Flaring G Thermal destruction G Collection for reuse
   G Good condition G Needs Maintenance
   Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
   G Good condition G Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   G Good condition G Needs Maintenance G N/A
   Remarks_____

F. Cover Drainage Layer G Applicable (G) N/A

1. **Outlet Pipes Inspected** G Functioning G N/A
   Remarks_____

2. **Outlet Rock Inspected** G Functioning G N/A
   Remarks_____

G. Detention/Sedimentation Ponds G Applicable (G) N/A

1. **Siltation** Areal extent_____ Depth_____ G N/A
   G Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   G Erosion not evident
   Remarks_____

3. **Outlet Works** G Functioning G N/A
   Remarks_____

4. Dam G Functioning G N/A
   Remarks_____

H. Retaining Walls G Applicable (G) N/A

1. **Deformations** G Location shown on site map G Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** G Location shown on site map G Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge (G) Applicable G N/A

1. **Siltation** G Location shown on site map (G) Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** G Location shown on site map G N/A
   (G) Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** G Location shown on site map (G) Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** G Functioning (G) N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS G Applicable (G) N/A

1. **Settlement** G Location shown on site map G Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   G Performance not monitored
   Frequency_____ G Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES (G) Applicable G N/A
A. Groundwater Extraction Wells, Pumps, and Pipelines (G) Applicable G N/A
1. **Pumps, Wellhead Plumbing, and Electrical** (G) Good condition G All required wells properly operating G Needs Maintenance G N/A Remarks Treatment plant electrical operational. Pumping wells not checked but treatment [illegible] monthly
2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances** G Good condition G Needs Maintenance Remarks Not checked
3. **Spare Parts and Equipment** G Readily available G Good condition G Requires upgrade G Needs to be provided Remarks N/A
B. Surface Water Collection Structures, Pumps, and Pipelines G Applicable (G) N/A
1. **Collection Structures, Pumps, and Electrical** G Good condition G Needs Maintenance Remarks
2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances** G Good condition G Needs Maintenance Remarks
3. **Spare Parts and Equipment** G Readily available G Good condition G Requires upgrade G Needs to be provided Remarks

C. Treatment System G Applicable (G) N/A System temporarily off line

1. **Treatment Train** (Check components that apply)
   G Metals removal G Oil/water separation G Bioremediation
   G Air stripping G Carbon adsorbers
   G Filters_____
   G Additive (*e.g.*, chelation agent, flocculent)_____
   G Others_____
   G Good condition G Needs Maintenance
   G Sampling ports properly marked and functional
   G Sampling/maintenance log displayed and up to date
   G Equipment properly identified
   G Quantity of groundwater treated annually_____
   G Quantity of surface water treated annually_____
   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   G N/A G Good condition G Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   G N/A G Good condition G Proper secondary containment G Needs Maintenance
   Remarks_____

4. **Discharge Structure and Appurtenances**
   G N/A G Good condition G Needs Maintenance
   Remarks_____

5. **Treatment Building(s)**
   G N/A G Good condition (esp. roof and doorways) G Needs repair
   G Chemicals and equipment properly stored
   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   G Properly secured/lockedG Functioning G Routinely sampled G Good condition
   G All required wells located G Needs Maintenance G N/A
   Remarks_____

D. Monitoring Data

1. Monitoring Data
   (G) Is routinely submitted on time G Is of acceptable quality

2. Monitoring data suggests: Perimeter wells not exceeding MCL as of 10/24/02
   G Groundwater plume is effectively contained G Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)

G Properly secured/locked G Functioning G Routinely sampled G Good condition
G All required wells located G Needs Maintenance G N/A

Remarks: [illegible] secure [illegible] are not locked [illegible] wells are locked [illegible] useable), one by lake effect unuseable

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

Effective remedy – landfill cap + natural attenuation. Yes, remedy is effective and functioning – no offsite migration

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

O&M procedures include monitoring groundwater and compliance points with respect to a contingency plan [illegible] a trigger which is exceeding [illegible]

C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. N/A
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. Shutting Plant down Continue monitoring and alternative gas monitoring and possible decreasing # of wells monitored and/or frequency of sampling, and/or constituents monitoring for.

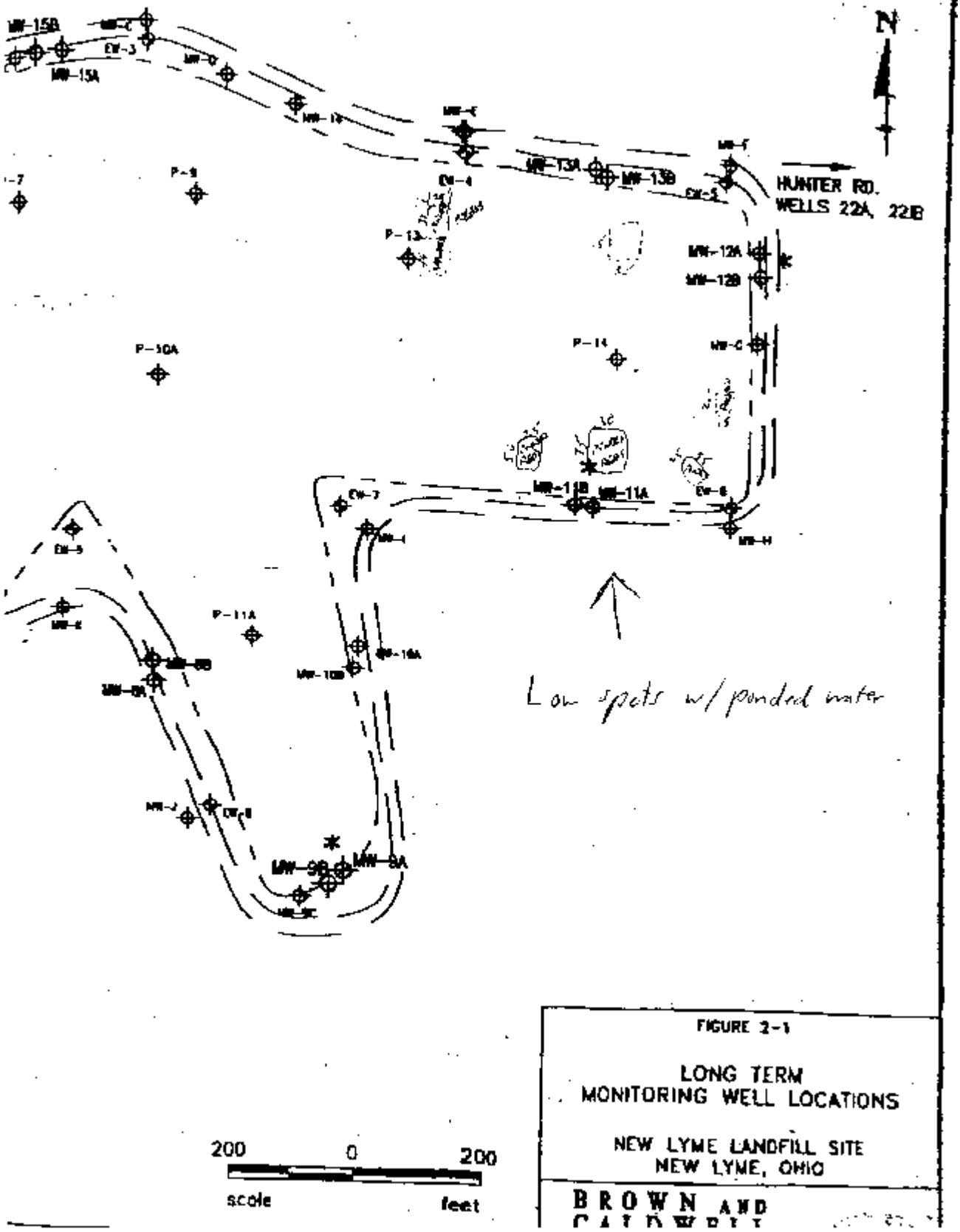

FIGURE 2-1

LONG TERM
MONITORING WELL LOCATIONS

NEW LYME LANDFILL SITE
NEW LYME, OHIO

BROWN AND

State of Ohio Environmental Protection Agency
Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

TELE(330) 425-9171 **FAX** (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

October 24, 2002

RE: NEW LYME LANDFILL
ASHTABULA COUNTY
OHIO EPA ID # 204-0559
FIVE-YEAR REVIEW INTERVIEW

Resident / Owner
New Lyme, Ohio 44066

Dear Resident / Owner:

The Ohio Environmental Protection Agency (Ohio EPA), in cooperation with the United States Environmental Protection Agency (U.S. EPA), is conducting a five-year review for the New Lyme Landfill site in New Lyme, Ashtabula County, Ohio. The agencies are conducting this status review of the New Lyme Landfill Superfund Site. The Superfund law requires regular reviews of sites (at least every five years) where construction of the cleanup is complete, but hazardous waste remains managed on site. These reviews are done to ensure that the cleanup continues to protect human health and the environment.

This review will include an evaluation of background information, cleanup requirements, extent of sampling, effectiveness of the cleanup, and any anticipated future actions.

Originally, both agencies selected several cleanup actions for the site. They included: a ground water pump and treat system to contain and treat contaminated ground water, a cover over the on-site landfill, and ground-water monitoring to assist in evaluating the effectiveness of the cleanup. The agencies have made modifications to the original cleanup plan, such as the shutdown of the pump and treat system, the revision of the ground water monitoring and sampling plan, and the addition of contingency plans as part of the modified cleanup.

More recently, the potentially responsible parties have conducted quarterly ground water monitoring at the perimeter of the landfill for over a year. The analytical results of these monitoring events indicated that no hazardous substances were detected above their corresponding Maximum Contaminant Level (MCL), a maximum level allowable in public drinking water.

Enclosed is an interview questionnaire, which will be handed out to neighbors of the site. Please, answer the following questions and return it in the self-addressed, stamped envelope. Your feedback and suggestions will be carefully reviewed and will help in the five-year review process. The five-year review report will be available by Spring 2003.

If you have any questions, please feel free to contact me toll-free at (800) 686-6330, ext. 249.

Sincerely,

Andrew C. Kocher
Site Coordinator
Division of Emergency and Remedial Response

ACK/kss

enclosure

NEW LYME LANDFILL
NEW LYME, ASHTABULA COUNTY, OHIO

INTERVIEW QUESTIONNAIRE

Instructions: Please answer all the questions. You may write on the back or attach an additional sheet, if necessary. Your feedback is very appreciated. Thank You.

Name: John Mezinger Date: 24 OcT 2002

Address: 1550 Dodgeville rd

Jefferson, Ohio 44047

1. **What is your overall impression of the project? (general sentiment)**

   Good job

2. **What effects have site operations had on the surrounding community or yourself?**

   More Traffic

   New fishing hole for fisherman

3. **Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.** Afraid land values might be lower

4. **Are you aware of any events, incidents, or activities at the site, such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

   Believe landfill sight is used as lovers lane. lots of Traffic at night

5. **Do you feel well informed about the site's activities and progress?**

   NOT really

6. **Do you have any comments, suggestions, or recommendations regarding the project (e.g., design, management, regulatory agencies, operations, etc.)?**

   NO

NEW LYME LANDFILL
NEW LYME, ASHTABULA COUNTY, OHIO

INTERVIEW QUESTIONNAIRE

Instructions: Please answer all the questions. You may write on the back or attach an additional sheet, if necessary. Your feedback is very appreciated. Thank You.

Name: Ray and Vera Kaderly Date: 10/24/02

Address: 1266 Dodgeville Rd.
Jefferson, OH 44047

1. **What is your overall impression of the project? (general sentiment)**
Has not effected their lifestyle.

2. **What effects have site operations had on the surrounding community or yourself?**
sampling their drinking water

3. **Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.**
No

4. **Are you aware of any events, incidents, or activities at the site, such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**
No

5. **Do you feel well informed about the site's activities and progress?**
Yes

6. **Do you have any comments, suggestions, or recommendations regarding the project (e.g., design, management, regulatory agencies, operations, etc.)?**
No

NEW LYME LANDFILL
NEW LYME, ASHTABULA COUNTY, OHIO

INTERVIEW QUESTIONNAIRE

Instructions: Please answer all the questions. You may write on the back or attach an additional sheet, if necessary. Your feedback is very appreciated. Thank You.

Name: Genevieve Reid Date: Oct 25, 2002

Address: 1789 Hodgeville E
Jefferson, OH 44047

1. **What is your overall impression of the project? (general sentiment)**

Well done. Competent

2. **What effects have site operations had on the surrounding community or yourself?**

none

3. **Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.**

No

4. **Are you aware of any events, incidents, or activities at the site, such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**

none

5. **Do you feel well informed about the site's activities and progress?**

yes

6. **Do you have any comments, suggestions, or recommendations regarding the project (e.g., design, management, regulatory agencies, operations, etc.)?**

none

NEW LYME LANDFILL
NEW LYME, ASHTABULA COUNTY, OHIO

INTERVIEW QUESTIONNAIRE

Instructions: Please answer all the questions. You may write on the back or attach an additional sheet, if necessary. Your feedback is very appreciated. Thank You.

Name: Sherry Monroe Date: 10/25/02

Address: 1576 Dodgeville Rd

Jefferson, OH 44047

1. **What is your overall impression of the project? (general sentiment)**
   I have always felt safer knowing that the EPA is monitoring our water.

2. **What effects have site operations had on the surrounding community or yourself?**
   no effect

3. **Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.**
   no

4. **Are you aware of any events, incidents, or activities at the site, such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**
   no

5. **Do you feel well informed about the site's activities and progress?** yes

6. **Do you have any comments, suggestions, or recommendations regarding the project (e.g., design, management, regulatory agencies, operations, etc.)?** no

NEW LYME LANDFILL
NEW LYME, ASHTABULA COUNTY, OHIO

INTERVIEW QUESTIONNAIRE

Instructions: Please answer all the questions. You may write on the back or attach an additional sheet, if necessary. Your feedback is very appreciated. Thank You.

Name: Ken Davis - (440)685-4776 Date: 1/7/03
Title: Area Manager - ODNR
Address: Mosquito Creek Wildlife Area
Trumbull Co, Ohio

1. **What is your overall impression of the project? (general sentiment)**
Great deal for wildlife division, usage went up for wildlife area.
Very active, well maintained landfill

2. **What effects have site operations had on the surrounding community or yourself?**
Turned negative in to positive
increase people - visitors - bird watchers

3. **Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.**
No (Past concern of water level in creek)

4. **Are you aware of any events, incidents, or activities at the site, such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.**
No, (trash is normal for wildlife area)

5. **Do you feel well informed about the site's activities and progress?**
Not lately, but before shut down was well informed

6. **Do you have any comments, suggestions, or recommendations regarding the project (e.g., design, management, regulatory agencies, operations, etc.)?**
No

7. Do you have any concerns pertaining to the wildlife area? Is the newer constructed pond and wildlife area adapting with the surrounding environment?
Great enhancement, adaptation is great

Attachment B

List of ARARs

ARARs Identified for the Five-Year Review

The following ARARs are identified for the five-year review:

- **Ohio Revised (ORC) Chapter 6111 Water Pollution Control**
  Section 6111.04 prohibits pollution to waters (including ground water) of the State of Ohio;
  Section 6111.04.2 requires compliance with National Effluent Standards;
  Section 6111.04.3 requires permits for the discharge of wastes into well;
  Section 6111.07 prohibits violations of any rule or permit in regards to water pollution.

- **ORC Chapter 3734 Solid and Hazardous Waste**
  Section 3734.02(H) prohibits digging, etc., into or on any land where a hazardous or solid waste facility is located without prior authorization of the Director of Ohio EPA;
  Section 3734.11 prohibits anyone from violating any section of this chapter or any rule associated with Section.

- **ORC Chapter 3767 Nuisances**
  Section 3767.13, Section 3767.14, Section 3767.17, Section 3767.18, and Section 3767.32 prohibit nuisances regarding wells, refuse, and waters.

- **Ohio Administrative Code (OAC) 3745-27-13**
  This rule provides the means to grant authorization to engage in obtrusive actions in land where a hazardous or solid waste facility was operated.

- **OAC 3745-9-10 Abandonment of Test Holes and Wells**
  All wells not in use must be properly abandoned.

- **OAC 3745-27-14, Post-Closure Care of Sanitary Landfill Facilities**
  This rule specifies the requirements to continue management of leachate, landfill gas and surface water runoff. It also requires maintenance of the cap and continued ground water monitoring.

- **OAC 3745-66-18 (G), Post Closure Plan, Amendment of Plan**
  This is a hazardous waste rule that specifies when and how post-closure care requirements can be modified. For example, it discusses how a post closure care requirement can be discontinued upon a demonstration that it is no longer necessary. While the rule is intended for hazardous waste units, it is relevant and appropriate for other landfills as well.

Attachment C

PRP Five-Year Review Report
(not received as of February 5, 2003)

The report was not received within adequate time to be included as an attachment.